APPROACHES FOR THE APPLICATION OF PHYSIOLOGICALLY -BASED PHARMACOKINETIC DATA AND MODELS IN RISK ASSESSMENT

APPENDIX 3:
Partition coefficients and metabolic rate constants for PBPK modeling of environmental

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Acetone			
Species	Rat	Human	Human
Reference	**18**	**18**	**81**
Partition coefficients			
Blood/air	275	260	245
Brain/blood	0.5	0.69	
Fat/blood	0.31	0.44	0.44
Liver/blood	0.6	0.58	0.58
Kidney/blood			0.74
Rapidly perfused/blood	0.53	0.69	0.69
Slowly perfused/blood	0.55	0.7	
Muscle and skin/blood			0.77
Mucus/air	275	260	
Biochemical Parameters			
VmaxC (mg/h/kg)	7.5	3.5	18.6
Km (mg/L)	75	10	83.5
Clearance into upper respiratory tract (L/h/kg)	11	11	
Urinary clearance (L/h)		0.004	
Fecal clearance (h^{-1})	0.25	0	
Skin permeability coefficient (cm/h)	0.008		
First-order absorption stomach/peritoneum (h^{-1})	2.0	1.0	
Transfer from stomach to duodenum (h^{-1})	3.0	10.0	
First-order absorption from duodenum (h^{-1})	0.5	8.0	

Acrylonitrile			
Species	Rat	Rat	Human
Reference	**52**	**69**	**127**
Partition coefficients			
Blood/air	512	512	154
Liver/blood	0.46	0.46	1.51
Stomach/blood		0.46	1.34
Brain/blood	0.40	0.40	1.34
Fat/blood	0.28	0.28	
Rapidly perfused/blood	0.46	0.46	1.34
Slowly perfused/blood	0.35	0.35	1.16
Biochemical parameters			
Oxydation			
VmaxC (mg/h/kg)	6.5	5	15.6
Km (mg/L)	1.5	1.5	0.8
GSH conjugaison			
KFC enzymatic (h^{-1}. kg^{-1})	30	73	
KFC enzymatic (L/h/kg)			113
KSO spontaneous (L/mmol/hr)		0.2584	0.2584
Binding to blood (h^{-1})	2.54	2.54	
Binding to blood RSH (h^{-1})			0.0008
Binding to hemoglobin (h^{-1})	1.245	1.245	1.245
Oral absorption rate in water (h^{-1})	2.0	8.0	8

2-Cyanoethylene Oxyde (acrylonitrile metabolite)			
Species	Rat	Rat	Human
Reference	**52**	**69**	**127**
Partition coefficients			
Blood/air	1658	1658	1658
Liver/blood	0.27	0.27	0.27
Stomach/blood		0.27	0.27
Brain/blood	1.40	1.40	1.40
Fat/blood	0.78	0.78	???
Rapidly perfused /blood	0.27	0.27	0.27
Slowly perfused/blood	1.84	1.84	1.84
Biochemical parameters			
Hydrolysis			
VmaxC (mg/h/kg)			841
Km (mg/L)			113
Elimination (h^{-1}. kg^{-1})			
KFC2 (liver)	750	500	
KFCBrC (brain)	8.4	11.5	
KFSIC (stomach)		27	
KFSC (slowly perfused)	9.3	4.4	
KFRSC (rapidly perfused)	9.3	15.5	
GSH conjugaison (L/h/kg)			
KFC2 (liver)			197
KFCBrC (brain)			10.4
KFSIC (stomach)			12.6
KFSC (slowly perfused)			3.9
KFRSC (rapidly perfused)			9.0
Binding to blood (h^{-1})	0.68	0.68	
Binding to blood RSH (h^{-1})			0.84
Binding to hemoglobin (h^{-1})	1.134	1.134	1.134

ARSENIC

As(V) Pentavalent arsenate				
Species	Rabbit	Hamster	Human	Human
Reference	**99**	**99**	**100**	**147**
Body weight (kg)	3.5	0.1		
Partition coefficients				
Liver/plasma	1.0	1.0	1.0	
Kidneys/plasma	40	40	40	
Lungs/plasma	1.0	1.0	1.0	
Skin/plasma	1.0	1.0	1.0	
RBC/plasma			0.2	
Others/plasma	10	10	10	
Large intestine/blood				2.8
Skin/blood				2.5
Fat/blood				0.3
Muscle/blood				2.6
Kidney-VRG/blood				4.15
Liver/blood				5.3
Lung/blood				4.15
Biochemical parameters				
Reduction first-order rate in plasma As(V) to As(III) (l/h)	3000	100		
Reduction first-order rate in plasma As(V) to As(III) (h-1)			1.37	
Oxydation first-order rate in plasma (l/h)	6000	400		
Oxydation first-order rate in plasma (h-1)			1.83	
Reduction first-order rate in kidney As(V) to AS(III) (l/h)	30	1.0		
Reduction first-order rate in kidney As(V) to AS(III) (h-1)			1.8	
KR GSH reduction As(V) to As(III) all perfused tissues (mol/min)				**
Clearance GFR (ml/min)	10	0.6	156	
Urinary excretion rate of As(V) (% of GFR)	75	75		
Urinary excretion rate of As(V) (min-1)				1.25×10^{-3}
Fecal excretion rate of As(V) (min-1)				$2{,}00 \times 10^{-5}$
Biliary excretion rate of As(V) (min-1)				$3{,}00 \times 10^{-4}$
Absorption rate constant GI (Arsenic acid) (h^{-1})			2.5	
Absorption rate constant GI (Drinking water) (h^{-1})			2.5	
Absorption rate Small Intestine (min^{-1})				$2{,}00 \times 10^{-2}$
Absorption rate Large Intestine (min^{-1})				$2{,}00 \times 10^{-2}$
	*	*	*	

* Transfer from plasma to the tissues is also dependent on the permeability of the capillaries.

** Chemical reaction with tissue glutathione (GSH concentrations reported in Table 5 of the article)

As(III) Trivalent Arsenite				
Species	Rabbit	Hamster	Human	Human
Reference	**99**	**99**	**100**	**147**
Partition coefficients				
Liver/plasma	200	200	200	
Kidneys/plasma	20	20	20	
Lungs/plasma	1.0	1.0	1.0	
Skin/plasma	60.0	60.0	60.0	
RBC/plasma			1.5	
Others/plasma	40	40	40	
Large intestine/blood				2.8
Skin/blood				2.5
Fat/blood				0.3
Muscle/blood				2.6
Kidney-VRG/blood				4.15
Liver/blood				5,3
Lung/blood				4.15
Biochemical parameters				
Liver				
Vmax As(III) to MMA 1st methylation (µmol/ml/h)	4.0	0.12	0.0004	
Vmax As(III) to MMA (mol/min)				5.20×10^{-7}
Km As(III) to MMA 1st methylation (µmol/ml)	0.05	0.12	0.00015	0.10
Vmax As(III) to DMA (mol/min)				1.04×10^{-6}
Km As(III) to DMA (mol/L)				1.00×10^{-4}
Kidney-VRG				
Vmax As(III) to MMA (mol/min)				3.47×10^{-7}
Km As(III) to MMA (mol/L)				1.00×10^{-4}
Vmax As(III) to DMA (mol/min)				4.63×10^{-7}
Km As(III) to DMA (mol/L)				1.00×10^{-4}
Urinary excretion rate of AS(III) (% of GFR)	>100	>100		
Urinary excretion rate of AS(III) (min-1)				8.33×10^{-4}
Absorption rate constant Gi tract (NaAsO2) (h^{-1})	*	*	1.8 *	

* Transfer from plasma to the tissues is also dependent on the permeability of the capillaries.

MMA Monomethylarsenic (Arsenic Metabolite)				
Species	Rabbit	Hamster	Human	Human
Reference	**99**	**99**	**100**	**147**
Partition coefficients				
Liver/plasma	10	10	10	
Kidneys/plasma	100	100	100	
Lungs/plasma	1.0	1.0	1.0	
Skin/plasma	50	50	50	
RBC/plasma			0.2	
Others/plasma	1	1	1	
Large intestine/blood				1.2
Skin/blood				1.25
Fat/blood				0.3
Muscle/blood				1.8
Kidney-VRG/blood				1.8
Liver/blood				2.35
Lung/blood				1.8
Biochemical parameters				
Liver				
Vmax MMA to DMA 2st methylation (µmol/ml/h)	1.5	0.12	0.0005	
Vmax MMA to DMA (mol/min)				7.41×10^{-7}
Km MMA to DMA methylation (µmol/ml)	0.9	0.08	0.00015	0.10
Kidney-VRG				
Vmax MMA to DMA in kidney-VRG (mol/min)				2.31×10^{-7}
Km MMA to DMA in kidney-VRG (mol/L)				1.00×10^{-4}
Urinary excretion rate of MMA (% of GFR)	100	100		
Urinary excretion rate of MMA (min^{-1})				0.07
Absorption rate constant Gi tract (h^{-1})			5.1	

DMA Dimethylarsenic (Arsenic Metabolite)				
Species	Rabbit	Hamster	Human	Human
Reference	**99**	**99**	**100**	**147**
Partition coefficients				
Liver/plasma	1	1	1	
Kidneys/plasma	5	5	5	
Lungs/plasma	20	20	20	
Skin/plasma	1	1	1	
RBC/plasma			0.2	
Others/plasma	1	1	1	
Large intestine/blood				1.4
Skin/blood				1.25
Fat/blood				0.3
Muscle/blood				2.8
Kidney-VRG/blood				2.075
Liver/blood				2.65
Lung/blood				2.075
Biochemical parameters				
Urinary excretion rate of DMA (% of GFR)	100	100		
Urinary excretion rate of DMA (min^{-1})				0.04
Absorption rate constant Gi tract (h^{-1})			4.4	

Benzene							
Species	Mouse	Mouse	Rat	Rat	Rat	Human	Human
Reference	**103**	**135**	**103**	**135**	**58 59**	**135**	**60**
Partition coefficients							
Blood/air	18.0	22	18.0	15	15	7.4	7.4
Liver/blood	1	0.91	1	1.13	1.13	1.49	1.49
Fat/blood	28	22.73	28	33.33	33.33	54.86	54.86
Bone marrow/blood		2.27		2.00		16.22	
Rapidly perfused /blood	1.0	0.91	1.0	1.13	1.13	1.49	1.49
Slowly perfused /blood	0.6	1.73	0.6	1.00	1.00	2.03	2.03
Biochemical parameters							
Liver							
Vmax (mg/h)		0.39		3.65		29.04	
VmaxC (mg/h/kg)	9.54		15.64		2.11		2.11
Km (mg/L)	3.13	0.35	0.0782	0.35	0.10	0.35	0.10
Bone Marrow							
VmaxC (mg/h/kg)		0.21		0.36		0.05	
Km (mg/L)		0.35		0.35		0.35	
Gastric absorption constant (min^{-1})		0.032		0.01			
Inhibition constants (mg/L)							
Ki competitive (dichloromethane)					0.084		0.08
Ki competitive (toluene)					0.223		0.22
Ki competitive (ethylbenzene)					0.626		0.63
Ki competitive (m-xylene)					0.226		0.23

Benzoic acid	
Species	Guinea Pig (Hairless)
Reference	**98**
Partition coefficients	
Liver/plasma	0.956
Rapidly perfused/plasma	0.956
Slowly perfused/plasma	0.511
Biochemical parameters	
Vmax (µg/hr)	3767
Km (µg/ml)	4460
Transdermal input function **	
K Elimination rate from skin	0.2245 - 0.1808
Ka Absorption rate into skin	0.1787 - 0.1790
Scaling parameter	12.35 - 38.45

* Optimized with different doses of BA

Bromochloromethane		
Species	Rat	Rat
Reference	**101**	**49** **48**
Partition coefficients		
Blood/air	41.5	41.5
Liver/blood	0.70	0.70
Fat/blood	7.83	7.83
Slowly perfused/blood	0.27	
Rapidly perfused/blood	0.70	
Skin/blood	2.53	
Muscle/blood		0.27
Biochemical parameters		
VmaxC (mg/h/kg)	7	7
Km (mg/L)	0.4	0.4
Kf First order hepatic metabolism ($h^{-1}.kg^{-1}$)	0.7	3.4
Skin permeability constant (cm/h)	0.79	

Bromodichloromethane		
Species	Rat	Rat
Reference	**92**	**27**
Partition coefficients		
Blood/air	31.4	31.4
Liver/blood	0.97	0.97
Kidney/blood	1.05	1.05
Fat/blood	16.75	16.75
Slowly perfused/blood	0.4	0.4
Rapidly perfused/blood	0.97	0.97
Biochemical parameters		
Vmax liver (mg/h/kg)	12.8	8.01
Km liver (mg/L)	0.5	0.30
Kidney/liver metabolic activity ratio	0.052	0.052
Ka Oral absorption in water vehicle (h^{-1})	0.28 – 3.1	
Bioavailability term for aquous dose	0.6 -1.0	
Emptying time for aquous dose(h)	0.13- 6.0	
Ka Oral absorption in oil vehicle (h^{-1})	0.20 - 0.85	
Bioavailability term for oil dose	0.3 – 0.99	
Emptying time for oil dose (h)	0.22 - 6.0	
Ka Oral absorption in Alkalamus vehicle (h^{-1})		0.41
Bromide Ion Submodel		
Kec Br Elimination constant ($h^{-1}.kg^{-1}$)	0.007	
Kw1c Br constant transfer blood to water ($h^{-1}. kg^{-1}$)	6.52	

2-Bromo,2-chloro-1,1,1-trifluoroethane (Halothane)		
Species	Rat	Human
Reference	**145**	**145**
Partition coefficients		
Blood/air	6.1	3.3
Liver/blood	1.15	2.42
Rapidly perfused/blood	1.15	2.42
Poorly perfused/blood	0.77	2.91
Fat/blood	29.18	44.24
Gut/blood	1.21	0.94
Biochemical parameters		
VmaxC (mg/h/kg)	7.4	7.4
Km (mg/L)	0.1	0.1
Ks Suppression constant (mg/L)	18.1	18.1
Vdc Volume of distribution for TFA (L/kg)	0.35	0.34
Klosc Elimination rate constant for TFA ($h^{-1}.kg^{-1}$)	0.01	0.03

Bromoform	
Species	Rat
Reference	**27**
Partition coefficients	
Blood/air	198.1
Liver/blood	1.06
Fat/blood	20.84
Richly perfused/blood	1.06
Slowly perfuseds/blood	0.58
Kidney/blood	0.88
Biochemical parameters	
Vmax (mg/h/kgr)	10.4
Km (mg/L)	0.42
Ka Oral absorption in Alkalamus vehicle (h^{-1})	0.421

Bromotrifluoromethane (Halon1301)		
Species		Human
Reference		**140**
Partition coefficients		
	Blood/air	0.34
	Liver/blood	2.50
	Rapidly perfused/blood	2.50
	Poorly perfused/blood	1.74
	Fat/blood	11.62
	Gut/blood	2.03
Biochemical parameters		
	VmaxC (mg/h/kg)	0
	Km (mg/L)	N/A

Butadiene (1,3-)							
Species		Mouse	Mouse	Mouse	Mouse	Mouse	Mouse
Reference		**66**	**78**	**37**	**105**	**84**	**126**
Partition coefficients							
	Blood/air	3.03	1.5	1.184	1.34	1.6	1.34
	Liver/blood		5.49	2.675	1.01	0.94	1.01
	Kidney/blood			1.69			
	Brain/blood			2.355			
	Rapidly perfused/blood		5.34	2.02		1.0	
	Slowly perfused/blood					2.3	
	Muscle/blood		5.26	1.871	2.99		2.99
	Fat/blood	7.23	118.2	32.362	14.33	11.4	14.33
	Lung/blood			1.272	1.10		1.10
	Lung & arterial , muscle &VRG, liver /blood	0.251					
Biochemical							
	Vmax total (µmol/h/kg)			465			
	Km (µM)			8			
	Vmax liver (µmol/h/kg)			318	338	485	338
	Km liver (µM)				2	11.0	2
	Vmax bronchial (µmol/h/kg)			77			
	Vmax lung (µmol/h/kg)			70	21.6		21.6
	Km lung (µM)				5.01		5.01
	LIVER						
	Vmax cyt1 (nmol/h/mg)	193.2	155.4				
	Km cyt1 (mM)	0.005	0.002				
	Vmax cyt2 (nmol/h//mg)		12				
	Km cyt2 (mM)		0.0156				
	LUNG						
	Vmax cyt1 (nmol/h/mg)		138.6				
	Km cyt1 (mM)		0.00501				
	LIVER						
	Vmax Oxydation to BMO (µmol/h/kg)						97
	Km Oxydation to BMO (µM)						0.88
	Vmax Oxydation to other volatiles (µmol/h/kg)						243
	Km Oxydation to other volatiles (µM)						2.72
	LUNG						
	Vmax Oxydation to BMO (µmol/h/kg)						6.4
	Km Oxydation to BMO (µM)						1.6
	Vmax Oxydation to other volatiles (µmol/h/kg)						16.1
	Km Oxydation to other volatiles (µM)						9.5

Butadiene monoepoxide (1,3-) (1,2-epoxy-3-butene)				
Species	Mouse	Mouse	Mouse	Mouse
Reference	**66**	**105**	**126***	**78**
Partition coefficients				
Blood/air	83.4	36.6	36.6	60
Liver/blood		1.150	1.150	0.6545
Kidney/blood				
Brain/blood				
Rapidly perfused/blood				0.6348
Muscle/blood		0.645	0.645	0.6533
Fat/blood	1.859	2.492	2.492	1.8083
Lung/blood		1.538	1.538	
Lung & arterial , muscle &VRG, liver /blood	0.71			
Biochemical parameters				
LIVER				
Vmax Oxidation (one enzyme) (µmol/h/kg)		26	176.6	
Km Oxydation (one enzyme) (µM)		15.6	145	
Vmax Oxidation^{-1} (two enzyme) (µmol/h/kg)			32.5	
Km Oxydation^{-1} (two enzyme) (µM)			15.6	
Vmax Oxidation^{-2} (two enzyme) (µmol/h/kg)			144.1	
Km Oxydation^{-2} (two enzyme) (µM)			145	
Vmax hydrolysis (liver) (µmol/h/kg)		754	754	
Km (µM)		1590	1590	
Vmax GSH conjugation (liver) (µmol/h/kg)		154000	154000	
Km (µM)		35300	35300	
K (L/kg/hr)		4.36		
LIVER				
Vmax Epoxide hydrolase (nmol/h/mg)	1020			347.4
Km Epoxide hydrolase (mM)	0.7			1.59
Km intrinsic (% of apparent Km)	20			
Vmax GST (nmol/h/mg)				30000
Km GST (mM)	100			35.3
Vmax/Km GST (µl. min^{-1}.mg^{-1})	17			
LUNG				
k Apparent first-order rate for epoxide hydrolysis (h^{-1} /mg)				0.112
Vmax GST (nmol/h/mg)				16380
Km GST (mM)				36.5
k Apparent first-order rate for GST (h^{-1} /mg)				

* Nonenzymatic reaction rate constants in tissues (blood, liver, lung and fat)

Butanol (tertiary)	
Species	Rat
Reference	**12**
Partition coefficients	
Blood/air	481
Kidney/blood	1.13
Liver/blood	0.83
Fat/blood	0.40
Muscle/blood	1.02
Biochemical parameters	
VmaxC pathway A (µmol/h/kg)	54
Km pathway A (µM)	379

Butoxyethanol (2-)									
Species	Mouse Male	Mouse Female	Rat	Rat	Rat Male	Rat Female	Human	Human	Human
Reference	86	86	122	21	86	86	66	21	86
Partition coefficients:									
Blood/air	7965	7965	8000	7965	7965	7965	**	7965	7965
Liver/blood	1.46	1.46	0.9	1.46	1.46	1.46	1.0	1.46	1.46
Kidney/blood	1.83	1.83		1.83	1.83	1.83		1.83	1.83
Lung/blood	11.3	11.3		11.3	11.3	11.3		11.3	11.3
Fat/blood	2.09	2.09	0.7	2.09	2.09	2.09		2.09	2.09
Muscle/blood			0.9	0.64			1.0	0.64	
Gi/blood	4.33	4.33	0.9	4.33	4.33	4.33	1.0	4.33	4.33
Skin/blood	2.9	2.9	0.9	2.9	2.9	2.9		2.9	2.9
Skin/air	7965	7965		7965	7965	7965		7965	7965
Rapidly perfused/blood	1.46	1.46	0.9	1.46	1.46	1.46	1.0	1.46	1.46
Slowly perfused /blood	0.64	0.64		0.64	0.64	0.64	1.0	0.64	0.64
Biochemical parameters									
Vmax (µmol/min/g liver)							0.73		
Km (µM)							239		
2BE to butoxyacetic acid (2BAA) in liver									
VmaxC (mg/h/kg)	208.9	208.9	102.15	375	103.4	208.9		375	103.4
Km (mg/L)	20.1	20.1	37.47	26.9	20.1	20.1		26.9	20.1
2BE to others in liver									
VmaxC (mg/h/kg)				5				5	
Km (mg/L)				0.5				0.5	
2BE to ethylene glycol (EG) in liver									
VmaxC (mg/h/kg)	2.4	2.4	2.33		2.4	2.4			2.4
Km (mg/L)	2.7	2.7	2.74		2.7	2.7			2.7
2BE to BE-glucuronide (2BEG) in liver									
VmaxC (mg/h/kg)	14.5	14.5	14.31		14.5	14.5			14.5
Km (mg/L)	55.8	55.8	55.79		55.8	55.8			55.8
2BE-glucuronide (2BEG) to 2BE in liver									
VmaxC (mg/h/kg)			0.59						
Km (mg/L)			118.20						
BE to BE-glucuronide in skin comp.									
Skin 1 VmaxC (mg/h/kg)			0.15						
Skin 1 Km (mg/L)			55.79						
Skin 2 VmaxC (mg/h/kg)			2.97						
Skin 2 Km (mg/L)			55.79						
Protein binding									
Pbinding sites (mg/L)	*	*		164	*	*		164	*
KD dissoc constant (mg/L)	*	*		46	*	*		46	*
First-order transfer rate GI to feces (h^{-1})			1						
First-order transfer rate of metabolites to urine (h^{-1})			5						
BE skin absorption in dermal exposures (h^{-1})			5						
BE to GI in drinking water exposures			$5.76(8.34E-6)$ $t^{1.76}$						
Ka Oral absorption constant (h^{-1})	1	1		1	1	1		1	1
Kp Dermal permeability constant (cm/h) for	3	3		3	3	3		3	3

* Corley et al (1994) TAP 129:61-79 adjusted on plasma albumin concentrations

** Blood/air partiton coefficient replace by relative pulmonary uptake set to 60% of the pulmonary ventilation

Carbon tetrachloride							
Species	Rat	Rat	Rat	Rat	Rat	Monkey	Human
Reference	**109**	**51**	**47**	**36**	**133**	**109**	**109**
Partition coefficients							
Blood/air	4.52	4.52	4.52	5.49	4.52	4.52	2.64
Liver/blood		3.14	3.14	2.95	3.14		
Fat/blood	79.4	79.42	79.5	51.24	79.4	100	136
Richly perfused/blood			3.14	2.95	3.14		
Slowly perfuseds/blood		1.01		2.43	2		
Muscle/blood	2		1.01			2	1.74
Lung/blood			3.14				
Biochemical parameters							
Vmax (mg/h)			0.178				
VmaxC (mg/h/kg)	0.64	0.40		0.37	0.828	0.66	0.65
Km (mg/L)	0.25	0.25	0.25	1.3	0.25	0.25	0.25
Lung:alveolar mass transfer coefficient (ml/min)			500				
VmaxC (mg/h/kg) after 24hr methanol exposure				1.6			
VmaxC (mg/h/kg) after 48hr methanol exposure				0.6			

Chlordecone		
Species		Rat
Reference		**13**
Partition coefficients		
Fat/blood		15
Liver/blood		55
Muscle/blood		5.0
Skin/blood		6.0
Gastrointestinal tract		
	Stomach/blood	7
	Small Intestine 1 /blood	8
	Small Intestine 2 /blood	7
	Small Intestine 3 /blood	6
	Cecum/blood	5
	Large Intestine/blood	4
	Lumen/Stomach	1
	Lumen/Small Intestine 1	0.5
	Lumen/Small Intestine 2	0
	Lumen/Small Intestine 3	0.3
	Lumen/Cecum	0.2
	Lumen/Large Intestine	0.2
Biochemicals parameters		
Permeability-area products (ml/min)		
	Liver/blood	11
	Skin/blood	0.54
	Stomach/blood	0.2
	Small Intestine 1 /blood	0.3
	Small Intestine 2 /blood	0.26
	Small Intestine 3 /blood	0.25
	Cecum/blood	0.09
	Large Intestine/blood	0.1
	Lumen/Stomach	0.002
	Lumen/Small Intestine 1	0.05
	Lumen/Small Intestine 2	0.04
	Lumen/Small Intestine 3	0.02
	Lumen/Cecum	0.006
	Lumen/Large Intestine	0.004
Biliary excretion (ml/h)		3.6

Chlorobiphenyl (4-)			
Species		Mouse	Rat
Reference		**136**	**3**
Partition coefficients			
Parent coumpound			
	Muscle/blood	1	1
	Skin/blood	10	10
	Fat/blood	30	30
	Liver/blood	1	1
	Gut lumen/blood	1	1
Metabolite			
	Muscle/blood	0.14	0.14
	Skin/blood	0.25	0.25
	Fat/blood	0.6	0.6
	Liver/blood	2	2
	Gut lumen/blood	1	1
Biochemical parameters			
km Metabolic clearance PCB (ml/min)		2.43	10
kB Biliary clearance of metabolite (ml/min)		0.05	0.2
kK Kidney clearance of metabolite (ml/min)		0.05	0.2
KG Gut reabsorption of metabolite (h^{-1})		0.12 (0.016)	0.0096
kF Fecal transport of metabolite (h^{-1})		0.08	0.048

1-Chloro-1,1-difluoroethane	
Species	Rat
Reference	**95**
Partition coefficients	
Blood/air	1.21
Liver/blood	1.22
Fat/blood	14.4
Rapidly perfused /blood	1.22
Lean tissue/blood	0.54
Biochemical parameters	
Kf First order metabolism rate constant (h^{-1} . kg^{-1})	2.59

Chloroethane	
Species	Rat
Reference	**51**
Partition coefficients	
Blood/air	4.08
Liver/blood	0.88
Fat/blood	9.46
Rapidly perfused /blood	
Slowly perfused /blood	0.79
Biochemical parameters	
VmaxC (mg/h/kg)	4.0
Km (mg/L)	0.1
Kf First order metabolism ($h^{-1}.kg^{-1}$)	1.0

Chloroform									
Species	Mouse	Mouse	Rat	Rat	Rat	Rat	Human	Human **Male**	Human **Female**
Reference	**20**	**122**	**20**	**51**	**122**	**27**	**20**	**22**	**22**
Partition coefficients									
Blood/air	21.3	21.3	20.8	20.8	20.8	20.8	7.43	7.43	7.43
Liver/blood	0.90	0.90	1.01	1.01	1.01	1.01	2.29	2.29	2.29
Kidney/blood	0.52	0.52	0.53		0.53	0.53	1.48	1.48	1.48
Fat/blood	11.36	11.36	9.76	9.76	9.76	9.76	37.69	37.69	37.69
Rapidly perfused /blood	0.90	0.90	1.01	1.01	1.01	1.01	2.29	2.29	2.29
Slowly perfused /blood	0.61	0.61	0.67	0.67	0.67	0.67	1.62	1.62	1.62
Skin/blood								1.62	1.62
Skin/water								3.85	3.85
Biochemical parameters									
VmaxC (mg/h/kg)	22.8	15	6.8	6.8	7	9.31	15.7	15.7	15.7
Km (mg/L)	0.352	0.1	0.543	0.25	1.0	0.422	0.448	0.448	0.448
Kgs Second-order rate constant GSH conjugaison ($\mu M^{-1}.h^{-1}$)				0.009					
Kresyn Enzyme destruction (h^{-1})	0.125		0				0	0	0
A Proportionality metabolism constant kidney/liver	0.153	0.153	0.052		0.052	0.052	0.033	0.033	0.033
fMMB Macro molecular binding fraction (liver)	0.003	0.0022	0.00104		0.0015		0.002		
fMMB Macro molecular binding fraction (kidney)	0.01	0.011	0.0086		0.013		0.0093		
Ka Oral absorption in water vehicle (h^{-1})	5	8	5		2.45		5		
Ka Oral absorption in corn oil vehicle (h^{-1})	0.6	1.2	0.6		0.35		0.6		
Ka Oral absorption in Alkalamus vehicle (h^{-1})						0.586			
Kp Skin permeability coefficient (cm/h) 40 C								0.059	0.059
Kp Skin permeability coefficient (cm/h) 35 C								0.05	0.015
Kp Skin permeability coefficient (cm/h) 30 C								0.01	0.003

Chloromethane	
Species	Rat
Reference	**51**
Partition coefficients	
Blood/air	2.47
Liver/blood	1.40
Fat/blood	5.47
Rapidly perfused /blood	1.40
Slowly perfused /blood	0.39
Biochemical parameters	
VmaxC (mg/h/kg)	5.0
Km (mg/L)	1.0

Chloropentafluorobenzene						
Species	Mouse	Rat	Monkey (rhesus)	Monkey	Human	Human
Reference	**19**	**19**	**23**	**19**	**23**	**19**
Partition coefficients						
Blood/air	12.3	12.3	7	7.0	7	7.0
Liver/blood	2.77	2.77	8	8.0	8	8.0
GI tract/blood	2.55	2.55		3.65		3.65
Slowly perfuseds/blood	1.07	1.07	2.1	1.07	2.1	1.07
Richly perfuseds/blood	2.55	2.55	3.5	3.65	3.5	3.65
Fat/blood	75	75	104.1	93	104.1	93
Bone marrow/blood	11.6	11.6		16.0		16.0
Biochemical parameters						
KFC First order metabolism rate constant (h^{-1}. kg^{-1})	2.0	2.0	2.0	2.0	2.0	2.0

CHLOROFLUOROHYDROCARBONS			
2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)			
Species	Mouse	Rat	Hamster
Reference	**94**	**94**	**94**
Partition coefficients			
Blood/air	1.15	1.52	0.76
Liver/blood	1.11	1.47	4.55
Fat/blood	5.25	6.42	14.62
Rapidly perfused /blood	1.11	1.47	4.55
Lean tissue/blood	0.59	0.52	2.63
Biochemical parameters			
VmaxC (mg/h/kg)	1.78	0.35	
Km (mg/L)	1.2	1.2	
Kf First order metabolism rate constant (h^{-1}. kg^{-1})	4.08	1.25	1.47

Cyclohexane	
Species	Human
Reference	**111**
Partition coefficients	
Blood/air	1.3
Liver/blood	8.5
Vessel-rich group/blood	7
Muscle/blood	7.7
Poorly perfused/blood	2
Fat/blood	200
Biochemical parameters	
Vmax (mg/min)	5.0
Km (mg/L)	0.43
Synthesis rate constant 1,2-DIOL (min^{-1})	0.25
Synthesis rate constant 1,4-DIOL (min^{-1})	0.11
Urinary excretion rate (ml/min)	1.0

Chlorpyrifos			
Species		Rat	Human
Reference		**134**	**134**
Partition coefficients			
Parent coumpound			
	Brain/blood	33	33
	Diaphragm/blood	6	6
	Fat/blood	435	435
	Liver/blood	22	22
	Rapidly perfused/blood	10	10
	Poorly perfused/blood	6	6
	Skin/blood	6	6
Metabolite (CPF-oxon)			
	Brain/blood	26	26
	Diaphragm/blood	4.9	4.9
	Fat/blood	342	342
	Liver/blood	17	17
	Rapidly perfused/blood	8.1	8.1
	Poorly perfused/blood	4.9	4.9
Biochemical parameters			
CYP450 CPF to oxon (liver)			
	VmaxC1 (µmol/h/kg)	80	80
	Km1 (µmol/L)	2.86	2.86
CYP450 CPF to TCP			
	VmaxC2 (µmol/h/kg)	273	273
	Km2 (µmol/L)	24	24
A-EST oxon to TCP (liver)			
	VmaxC3 (µmol/h/kg)	74421	74421
	Km3 (µmol/L)	240	240
A-EST oxon to TCP (blood)			
	VmaxC4 (µmol/h/kg)	57003	57003
	Km4 (µmol/L)	250	250
Oral absorption parameters			
	KaS stomach (h^{-1})	0.01	0.01
	Kal intestine (h^{-1})	0.5	0.5
	Ksl transfer stomach-intestine (h^{-1})	0.5	0.5
	Fractional absorption (%)	0.8	0.72
Kp Permeability coefficient (cm/h)			$4{,}81 \times 10^{-5}$
Ke Elimination rate (h^{-1})		0.017	$1{,}70 \times 10^{-2}$
Plasma protein binding CPF (%)		97	97
Plasma protein binding CPF-oxon (%)		98	98

Dibromochloromethane	
Species	Rat
Reference	**27**
Partition coefficients	
Blood/air	116
Liver/blood	1.09
Fat/blood	16.53
Richly perfused/blood	1.09
Slowly perfuseds/blood	0.48
Kidney/blood	1.09
Biochemical parameters	
Vmax (mg/h/kgr)	13.7
Km (mg/L)	0.72
Ka Oral absorption in Alkalamus vehicle (h^{-1})	0.55

Dibromomethane		
Species	Rat	Rat
Reference	**101**	**49**
Partition coefficients		
Blood/air	74.1	74.1
Liver/blood	0.92	0.92
Fat/blood	10.69	10.69
Richly perfused/blood	0.92	
Slowly perfuseds/blood	0.55	
Skin/blood	3.59	
Muscle/blood		0.55
Biochemical parameters		
Vmax (mg/h/kgr)	12.5	12.5
Km (mg/L)	0.4	0.4
Kf First order hepatic metabolism ($h^{-1}.kg^{-1}$)	3.4	0.7
Skin permeability constant (cm/h)	1.32	

Dichlorobiphenyl (4,4'-)							
Species		Mouse	Mouse	Rat	Rat	Monkey	Dog
Reference		**136**	**97**	**3**	**97**	**97**	**97**
Partition coefficients							
Parent coumpound							
	Muscle/blood	2 (2)	2.0	2	2.0	5.0	4.0
	Skin/blood	10 (10)	10	10	10	50	12
	Fat/blood	70 (70)	70	70	70	300	40
	Liver/blood	5 (3)	5	3	3	20	6
	Gut lumen/blood			1			
Metabolite							
	Muscle/blood	0.4 (0.4)	0.4	0.4	0.4	0.3	0.16
	Skin/blood	0.8 (0.3)	0.8	0.3	0.3	1	0.8
	Fat/blood	1 (0.6)	1	0.6	0.6	9	0.6
	Liver/blood	4 (5)	4	5	5	2	0.4
	Gut lumen/blood			1			
Biochemical parameters							
km Metabolic clearance PCB (ml/min)		0.365 (0.487)	0.37	2	2	7	470
kB Biliary clearance of metabolite (ml/min)		0.1465 (0.085)	0.15	0.35	0.35	0.083	10.2
kK Kidney clearance of metabolite (ml/min)		0.069 (0.0325)	0.069	0.133	0.133	1.5	2.7
KG Gut reabsorption of metabolite (h^{-1})		0.454 (0.016)		0.0096	0	0	0
kF Fecal transport of metabolite (h^{-1})		0 (0.08)		0.048		0.04	0.04
F Fraction of preferential excretion by the liver (*km**(1-*F*)						0.1	0.4

***p,p'*-Dichlorodiphenylsulfone**		
Species		Rat
Reference		**108**
Partition coefficients		
Parent compound (DDS)		
	Fat/blood	106.0
	Kidney/blood	4.64
	Liver/blood	22.1
	Muscle/blood	3.84
	Skin/blood	16.1
Metabolites		
	Kidney/blood	1.09
	Liver/blood	2.21
	Muscle/blood	0.728
Biochemical parameters		
Metabolic rate constant (male) (h^{-1})		0.142
Metabolic rate constant (female) (h^{-1})		0.0989
Urinay excretion rate constant DDS (h^{-1})		2.70
Biliary excretion rate constant DDS (h^{-1})		4.83
Biliary excretion rate constant for metabolites (h^{-1})		2.01
Capillary permeability (liver and kidney)		0.441
Capillary permeability (other tissues)		0.793
Maximun rate of absorption from gut (mg/L.h)		$3.83 \times 10^{+3}$
Michaelis-Menten parameter for absorption fom gut (mg/L)		$5.61 \times 10^{+3}$

Dichloroethane (1,1-)	
Species	Rat
Reference	**51**
Partition coefficients	
Blood/air	11.2
Liver/blood	0.96
Fat/blood	14.64
Rapidly perfused /blood	
Muscle/blood	0.46
Biochemical parameters	
Vmax Oxidation (mg/h/kg)	7.5
Km (mg/L)	0.2

Dichloroethane (1,2-)			
Species	Mouse	Rat	Rat
Reference	**26**	**26**	**51**
Partition coefficients			
Blood/air	30	28	30.4
Liver/blood	1.2	1.2	1.17
Fat/blood	12	12	11.32
Rapidly perfused /blood	1.2	1.2	
Muscle/blood	0.8	0.8	0.77
Biochemical parameters			
Vmax Oxidation (mg/h/kg)	3.24	3.24	3.25
Km (mg/L)	0.25	0.25	0.25
Kf First-order rate constant GSH conjugaison ($h^{-1}.kg^{-1}$)	9.0 *	9.0 *	
Kgs Second-order rate constant GSH conjugaison ($\mu M^{-1}.h^{-1}$)			0.0014**
Kgs Second-order rate constant GSH conjugaison ($\mu M^{-1}.h^{-1}.kg^{-1}$)	0.0012**	0.0012**	

* Low exposure concentrations
** High exposure concentrations

Dichloroethylene (1,1-)			
Species	Rat	Rat	Rat
Reference	**48**	**25**	**51**
Partition coefficients			
Blood/air	5.0	5	5
Liver/blood	2.84	1.1	0.884
Fat/blood	0.88	18.4	13.72
Muscle/blood	0.41		0.41
Poorly perfused/blood		0.6	
Rapidly perfused/blood		1.1	0.884
Kidney/blood			
Biochemical parameters			
Vmax (mg/h)		2.6	
VmaxC (mg/h/kg)	7.5		7.5
Km (mg/L)	0.2	0.25	0.1
Metabolite detoxification			
Kgsm Reaction with GSH ($\mu M^{-1}.h^{-1}$)		0.33	
Kfee Reaction with 'everything else' (h^{-1})		50	
Kinm Conversion of epoxide to CAC met.(h^{-1})		9000	
KCO2 Reaction of epoxide with water ($M^{-1}. h^{-1}$)		1.82×10^{-5}	
H_2O Water concentration in liver (M)		55	

Dichloroethylene (1,2-) (cis)	
Species	Rat
Reference	**51**
Partition coefficients	
Blood/air	21.6
Liver/blood	0.71
Fat/blood	10.51
Muscle/blood	0.28
Rapidly perfused/blood	0.71
Biochemical parameters	
VmaxC (mg/h/kg)	3
Km (mg/L)	0.5
Kd Enzyme inhibition second-order rate constant	1.2

Dichloroethylene (1,2-) (trans)	
Species	Rat
Reference	**51**
Partition coefficients	
Blood/air	9.58
Liver/blood	0.94
Fat/blood	15.45
Muscle/blood	0.37
Rapidly perfused/blood	0.94
Biochemical parameters	
VmaxC (mg/h/kg)	3
Km (mg/L)	0.1
Kd Enzyme inhibition second-order rate constant	400

1,1-Dichloro-1-fluoroethane	
Species	Rat
Reference	**95**
Partition coefficients	
Blood/air	2.11
Liver/blood	1.59
Fat/blood	17.1
Rapidly perfused/blood	1.59
Lean tissue/blood	0.50
Biochemical parameters	
First order metabolism rate constant (h^{-1} . kg^{-1})	3.15

Dichloromethane						
Species	Mouse	Hamster	Human	Human	Human	Human
Reference	**3**	**3**	**34**	**4**	**5**	**60**
Partition coefficients						
Blood/air	8.29	22.5	9.7	9.7	8.94	8.94
Red blood cell/plasma						
Liver/blood	1.71	0.84	1.460	1.464	1.46	1.47
Lung/blood	1.71	0.84	1.460			
Richly perfused/blood	1.71	0.84	1.460		0.82	1.47
Slowly perfuseds/blood	0.96	1.196	0.82	0.814	0.82	0.82
Fat/blood	14.5	6	12.4	12.37	12.4	12.42
Kidney/blood						
Gut/blood						
Cacass/blood						
Skin/blood						
Biochemical parameters						
MFO pathway						
Vmax (mg/h)	1.054	2.047	118.9	78.0		
Vmax (mg/h/kgr)				3.36	6.25	6.25
Vmax(nmol/ml/min)						
Km (mg/L)	0.396	0.649	0.58	0.4	0.75	0.75
Km (nmol/ml)						
A1 Distribution of MFO activity between lung and liver	0.416	0.0638	0.00143			
GSH pathway						
Kf First-order hepatic metabolism (h^{-1})	4.017	1.513	0.53			
Kf First-order hepatic metabolism (h^{-1}. kg^{-1})					2.0	2.0
A2 Distribution of GSH activity between lung and liver	0.137	0.0774	0.0473			
Inhibition constants (mg/L)						
Ki competitive (benzene)						0.3
Ki competitive (toluene)						0.35
Ki competitive (ethylbenzene)						0.99
Ki competitive (m-xylene)						0.45

Dichlorophenoxyacetic acid (2,4-)			
Species	Rat	Rabbit	Rabbit
Reference	**73**	**74**	**72**
Partition coefficients			
Brain/plasma	1.42	1.42	1.42
Brain plasma/plasma	1.0	1.0	1.0
CSF/ plasma	1.0	1.0	1.0
Body/plasma	0.17	0.17	0.17
Biochemical parameters			
Vmax1 choroid plexus (mg/h)	2.1	2.1	2.1
Km1 choroid plexus (mg/l)	17	17	17
Vmax2 kidney (mg/h)	3.45	3.45	3.45
Km2 kidney (mg/l)	86	86	86
Transfert between body and deep compartment (l/h)	0.013	0.017	0.017
Transfert between deep compartment and body (l/h)	0.048	0.05	0.05
Transfer constant between plasma and brain (l/h)	0.017		
Transfer constant between brain and CSF (l/h)	0.29		
First-order rate of ip dose absorption (h^{-1})	5,0	5.0	
First-order rate of oral dose absorption (h^{-1})	0.8		
Mass transfer rate constants in areas of the brain			
Plasma to cerebellum (l/h)		0.017	0.017
Plasma to hypothalamus (l/h)		0.017	0.017
Plasma to caudate nucleus (l/h)		0.017	0.017
Plasma to hippocampus (l/hr		0.017	0.017
Plasma to brainstem (l/h)		0.017	0.017
Plasma to forebrain (l/h)		0.017	0.017
Cerebellum to CSF (l/h)		0.7	0.8
Hypothalamus to CSF (l/h)		1.1	1.2
Caudate nucleus to CSF (l/h)		1.8	1.2
Hippocampus to CSF (l/h)		1.6	1.2
Brainstem to CSF (l/h)		1.6	1.0
Forebrain to CSF (l/h)		1.1	1.0

CHLOROFLUOROHYDROCARBONE							
2,2-Dichloro-1,1,1-trifluoroethane (HCFC-123)							
Species		Rat	Rat	Rat	Rat	Human	Human
Reference		**139**	**145**	**93**	**94**	**140**	**145**
Partition coefficients							
	Blood/air	3.2	3.2	4.06	4.06	1.9	1.9
	Liver/blood	1.03	1.03	1.15	1.15	1.58	1.58
	Rapidly perfused/blood	1.03	1.03	1.15	1.15	1.58	1.58
	Poorly perfused/blood	0.66	0.66			1.58	1.58
	Fat/blood	21.97	21.88	15.4	15.4	25.79	25.79
	Gut/blood	0.97	0.97			0.84	0.84
	Lean tissue/blood			1.2	1.2		
Biochemical parameters							
	VmaxC (mg/h/kg)	8.8	8.8	7.2	7.97	8.8	8.8
	Km (mg/L)	0.7	0.7	1.2	1.2	0.7	0.7
	Metabolite (TFA)						
	Ks Suppression constant (mg/L)	65	65				65
	Vdc Volume of distribution (L/kg)	0.345	0.35				0.34
	Klosc Elimination rate constant ($h^{-1}.kg^{-1}$)	0.01	0.01				0.03

Diethylether	
Species	Rat
Reference	**48**
Body weight (kg)	0.225
Partition coefficients	
Blood/air	12.2
Liver/blood	0.56
Fat/blood	3.91
Muscle/blood	0.43
Biochemical parameters	
Vmax (mg/h)	1.9
Km (mg/L)	0.2
Kf First order hepatic metabolism (h^{-1})	1.60

Difluoromethane (HFC32)	
Species	Rat
Reference	**35**
Partition coefficients	
Blood/air	1.25
Liver/blood	1.304
Rapidly perfused/blood	1.304
Poorly perfused/blood	1.152
Fat/blood	1.432
Biochemical parameters	
Kf First order metabolic rate constant (h^{-1})	8.98

Diisopropylfluorophosphate			
Species		Mouse	Rat
Reference		**54**	**54**
Partition coefficients			
	Blood/air	12.57	12.57
	Brain/blood	0.67	0.67
	Liver/blood	1.53	1.53
	Kidney/blood	1.63	1.63
	Richly perfused/blood	0.67	0.67
	Fat/blood	17.6	17.6
	Slowly perfuseds/blood	0.77	0.77
	Diaphragm/blood	0.77	0.77
Biochemical parameters			
	Hydrolysis of DFP in tissues		
	Vmax Brain (mg/h)	2.28	9.18
	Km Brain (mg/L)	439.8	439.8
	Vmax Liver (mg/h)	256.58	1380
	Km Liver (mg/L)	237.36	237.36
	Vmax Kidney(mg/h)	25.61	103.32
	Km Kidney (mg/L)	134.3	134.3
	Vmax Richly perfused (mg/h)	2.73	11.04
	Km Richly perfused (mg/L)	50.89	50.89
	Vmax Venous blood (mg/h)	79.38	320.18
	Km Venous blood(mg/L)	198.7	198.7
	Vmax Arterial blood (mg/h)	26.46	106.73
	Km Arterial blood (mg/L)	198.7	198.7
	Bimolecular inhibition rate constants ($\mu M^{-1}. h^{-1}$)		
	Acethylcholinesterase	14.16	14.16
	Butyrylcholinesterase (Fast)	354	354
	Butyrylcholinesterase (Slow)	30	30
	Carboxylesterase (Fast)	1.1	1.1
	Carboxylesterase (Slow)	0.52	0.52

Dioxane (1,4)					
Species	Mouse	Rat	Rat	Human	Human
Reference	**117**	**117**	**88**	**117**	**88**
Partition coefficients					
Blood/air	2750	1850	1850	3650	1825
Liver/blood	0.566	0.842	0.85	0.427	0.85
Fat/blood	0.309	0.460	0.4	0.233	0.4
Richly perfused/blood	0.566	0.842	0.85	0.427	0.85
Slowly perfuseds/blood	0.566	0.842	0.54	0.427	0.2
Saline/air	0.751	1.117		0.566	
Biochemical parameters					
Vmax (mg/h)			1.9 **		300
VmaxC (mg/h/kg)	10.0	13.7		6.35	
Km (mg/L)	16.2	29.4	7.5	3.0	15
Ka Oral absorption in water vehicle (h^{-1})	5	5		5.0	

**Vmax =3.5mg/h at doses greater than 300 mg/kg

Ethoxyethanol (ehtylene glycol monoethyl ether)			
Species		Rat	Human
Reference		**53**	**53**
Partition coefficients			
	Parent coumpound		
	Blood/air	22093	22093
	Liver/blood	1.00	1.00
	Rapidly perfused/blood	1.10	1.10
	Poorly perfused/blood	0.94	0.94
	Fat/blood	0.04	0.04
	Metabolite (2-EAA)		
	Liver/blood	1.10	1.10
	Rapidly perfused/blood	1.05	1.05
	Poorly perfused/blood	0.50	0.50
	Fat/blood	0.32	0.32
Biochemical parameters			
	First order rate EGEE to 2-EAA (L blood/h/kg liver)	223	76,6
	First order rate EGEE to EG (L blood/h/kg liver)	66.9	41.4
	Urinary excretion rate of 2-EAA (h^{-1})	0.015	0.4

Ethoxyethylacetate (ehtylene glycol monoethyl ether acetate)		
Species	Rat	Human
Reference	**53**	**53**
Partition coefficients		
Blood/air	3822	3822
Liver/blood	1.0	1.0
Rapidly perfused/blood	1.1	1.1
Poorly perfused/blood	0.94	0.94
Fat/blood	1.3	1.3
Biochemical parameters		
First order rate EGEEA to EGEE (L blood/h)	2.3	2.3

Ethyl acrylate		
Species		Rat
Reference		**45**
Coefficients partition		
Blood/air		367
Lung/blood		0.29 ± 0.07
Liver/blood		0.40 ± 0.09
Skin/blood		0.18 ± 0.09
Kidney/blood		0.31 ± 0.07
Muscle/blood		0.33 ± 0.13
Fat/blood		0.63 ± 0.27
Forestomach/blood		0.19 ± 0.06
Glandular stomach/blood		0.28 ± 0.07
Duodenum/blood		0.28 ± 0.07
Small intestine/blood		0.47 ± 0.12
Cecum/blood		0.41 ± 0.12
Large intestine/blood		0.40 ± 0.16
Colon/blood		0.30 ± 0.10
Biochemicals parameters		
Metabolic constants		
VmaxC (µmol/ml tissue/min) Hydrolysis rate		
	Lung	5.3
	Liver	31.7
	Skin	0.86
	Kidney	3.5
	Muscle	0.17
	Fat	1.6
	Other perfused tissues	0.79
	Venous blood	0.18
	Arterial blood	0.18
	Forestomach	0.26
	Glandular stomach	0.32
	Duodenum	0.55
	Small intestine	0.71
	Cecum	0.79
	Large intestine	0.54
	Colon	0.83
Km (µmol/ml tissue) Hydrolysis rate		
	Lung	1.88
	Liver	1.9
	Skin	5.45
	Kidney	15.18
	Muscle	4.47
	Fat	5.02
	Other perfused tissues	3.93
	Venous blood	4.6
	Arterial blood	4.6
	Forestomach	3,15
	Glandular stomach	4.4
	Duodenum	8.23
	Small intestine	5.9
	Cecum	3.93
	Large intestine	4.75
	Colon	4.21
GSH rate (M-1.min-1)		33.0

Ethylbenzene					
Species	Rat	Rat	Human	Human	Human
Reference	**129**	**58**	**129**	**60**	**63**
Partition coefficients					
Blood/air	42.7	42.7	28	28	28.4
Liver/blood	1.96	1.96	2.99	2.99	3.49
Slowly perfuseds/blood	0.61	0.61	0.93	0.93	
Richly perfused/blood	1.41	1.41	2.15	2.15	
Fat/blood	36.44	36.44	55.57	55.57	93.73
Muscle and skin/blood					1.86
Brain/blood					3.80
Kidneys/blood					1.90
Others/blood					2.43
Biochemical parameters					
VmaxC (mg/h/kg)	7.3	6.39	7.3	6.39	7.3
Km (mg/L)	1.39	1.04	1.39	1.04	1.39
Inhibition constants (mg/L)					
Ki competitive (dichloromethane)		0.112		0.11	
Ki competitive (toluene)	0.33	0.168	0.33	0.17	
Ki competitive (m-xylene)	0.23	0.505	0.23	0.51	1.5
Ki competitive (benzene)		0.256		0.26	
Urinary excretion rate mandelic acid (h-1)					0.231

Ethylene dibromide		
Species	Rat	Human
Reference	**112**	**112**
Partition coefficients		
Blood/air	74.1	74.1
Liver/blood	0.92	0.92
Fat/blood	10.69	10.69
Richly perfused/blood	0.92	0.92
Slowly perfuseds/blood	0.55	0.55
Biochemical parameters		
Vmax CYP2E1 (µmol/h/kg liver)	414	503
Km CYP2E1 (µM)	19	42
First order rate constant GST pathway (µmol/h/kg liver at 1µM)	3.7	2.7

Ethylene oxide	
Species	Rat
Reference	**80**
Partition coefficients	
Blood/air	64.14
Liver/blood	0.96
Slowly perfuseds/blood	0.75
Testis/blood	1.29
Fat/blood	0.69
Brain/blood	0.92
Lung/blood	0.95
Richly perfuseds/blood	1.05
Biochemical parameters	
Hydrolysis (h^{-1}, whole body except fat)	0.62
GSH conjugation (L. mmol $GSH^{-1}.h\text{-}^{-1}$)	
Liver	2.04
Lung	1.31
Testis	0.98
Other tissues	0.21
Hemoglobin binding (L.mg $Hb^{-1}.h^{-1}$)	
N-hydroxyethyl valine	$3{,}3 \times 10^{-8}$
N^1-hydroxyethyl histidine	$3, \times 10^{-8}$
N^3-hydroxyethyl histidine	$2{,}0 \times 10^{-8}$
N-hydroxyethyl cysteine	$3{,}3 \times 10^{-7}$
DNA binding (L.mg $DNA^{-1}h^{-1}$)	
Testis	1,7E-08
All other tissues	2,8E-08

Fluoride			
Species		Rat	Human
Reference		**115**	**115**
Partition ceofficients			
	Plasma/blood	1.333	1.333
	Liver/plasma	0.98	0.98
	Kidneys/plasma	4.16	4.16
	Rapidly perfused/plasma	0.83	0.83
	Slowly perfused/plasma	0.63	0.63
	Bone/plasma	1000-4000	1000
Kinetic constants			
	Bone clearance	Variable	Variable
	Renal clearance (younth)	*	*
	Renal clearance (adult) (ml/min/kg)	7.2	2.9
	Kbpl (bone to plasma) (kg^{-1} . hr^{-1}) * age factor	0.016	0.016

* Clearance = 30.6*exp(-0.166*age)

Furan			
Species	Mouse	Rat	Human
Reference	**68**	**68**	**68**
Partition coefficients			
Blood/air	6.59	6.59	6.59
Liver/blood	0.901	0.901	0.901
Fat/blood	9.721	9.721	9.721
Rapidly perfused/blood	0.901	0.901	0.901
Slowly perfused/blood	0.642	0.642	0.642
Biochemical parameters			
VmaxC (µmol/h/kg)	112	60.8	242.7 - 560.8
Km (µM)	1	0.4	2.1 - 3.3

Heptafluoropropane (HFC-227ea)	
Species	Human
Reference	**140**
Partition coefficients	
Blood/air	0.23
Liver/blood	1.83
Rapidly perfused/blood	1.83
Poorly perfused/blood	1.57
Fat/blood	6.87
Gut/blood	1.96
Biochemical parameters	
VmaxC (mg/h/kg)	0
Km (mg/L)	N/A

Hexabromobiphenyl (2,2',4,4',5,5'-)		
Species	Rat	Human
Reference	**137**	**137**
Partition coefficients		
Liver/blood	17	17
Muscle/blood	5	5
Fat/blood	340	340
Skin/blood	56.5	57
Intestine tissue/blood	1	1
Biochemical parameters		
Kb Biliary clearance(ml/hr)	0.074	5.06
KG Permeability constant (h^{-1})	0.7	0.7
Ks Stomach transport (h^{-1})	0.87	0.82
Kf Fecal transport (h^{-1})	0.095	0.05

Hexachlorobenzene				
Species		Rat	Rat (female)	Human (female)
Reference		**46**	**146**	**146**
Partition coefficients				
	Muscle + skeleton/plasma	3.16		
	Lung/plasma	7.7		
	Liver/plasma	11.4		
	Kidney/plasma	8.67		
	Fat/plasma	258		
	Colon/plasma	7.17		
	Spleen/plasma	4.16		
	Skin/plasma	25.7		
	Centralnervous system/plasma	6.47		
	Heart/plasma	6.86		
	GI tract/plasma	8.25		
	Colon/feces	0.9		
	Kidney/urine	16.0		
	Systemic circulation/blood		0.25	0.25
	Brain/blood		7.7	7.7
	Kidney/blood		5.3	5.3
	Liver/blood		13.1	13.1
	Intestinal lumen/blood		1	1
	Richly peRfused tissues/blood		10	10
	Poorly perfused tissues/blood		267	267
	Breast/blood		60	60
Biochemicals parameters				
	Unavailable HCB upper limits (µg/g)			
	Systemic circulation		4	4
	Brain		200	200
	Kidney		100	100
	Liver		300	300
	Intestinal lumen		0	0
	Richly pefused tissue		200	200
	Poorly perfused tissue		$6.0 \times 10^{+3}$	$6{,}0 \times 10^{+3}$
	Breast		$1.0 \times 10^{+6}$	$1{,}0 \times 10^{+6}$
	Factors modulating rate of uptake /Kidney		0.75	0.75
	Factors modulating tissues clearance / Poorly perfused tissues		0.9	0.9
	First order metabolic constant in liver (h-1)		0.2310	0.2310
	First order absorption rate Intestinal lumen/blood (h-1)		0.3466	0.3466
	First order secretion rate bile/lumen (h-1)		4.1586	4.1586
	First order elimination constant / feces (h-1)		0.0289	0.0289
	First order excretion constant / urine (h-1)		0.1155	0.1155

Hexachlorobiphenyl (2,2',3,3',6,6'-)				
Species		Rat	Monkey	Dog
Reference		**97**	**97**	**97**
Coefficients partition				
Parent coumpound				
	Muscle/blood	10.0	4.0	4.0
	Skin/blood	20	40	8
	Fat/blood	200	250	30
	Liver/blood	10	20	2
Metabolite				
	Muscle/blood	0.3	0.1	0.1
	Skin/blood	1	0.5	0.2
	Fat/blood	1	1	0.25
	Liver/blood	3	5	10
Biochemical parameters				
km Metabolic clearance HCB (ml/min)		5	15	183
kB Biliary clearance of metabolite (ml/min)		1	0,5	7
kK Kidney clearance of metabolite (ml/min)		0.03	0.4	2
kF Fecal transport of metabolite (h^{-1})			0.04	0.04
F Fraction of preferential excretion by the liver (*km**(1-*F*)			0.4	0.3

Hexachlorobiphenyl (2,2',4,4',5,5'-) (PCB153)								
Species		Mouse	Mouse	Mouse	Rat	Rat	Monkey	Dog
Reference		**136**	**97**	**86**	**3**	**97**	**97**	**97**
Coefficients partition								
Parent coumpound								
	Muscle/blood	5 (4)	5.0	5.0	4.0	4.0	7.0	6.0
	Skin/blood	35 (30)	35	35	30	30	70	30
	Fat/blood	300 (400)	300	300	400	400	500	300
	Liver/blood	10 (12)	10	10	12	12	30	10
	Gut lumen/blood				1			
	Brain/blood			2.5				
Metabolite								
	Muscle/blood	3 (0.3)	3		0.3	0.3	1	0.2
	Skin/blood	5 (2)	5		2	2	3	0.7
	Fat/blood	1 (2)	1		2	2	9	2
	Liver/blood	10 (4)	10		4	4	5	10
	Gut lumen/blood				1			
Biochemical parameters								
km Metabolic clearance HCB (ml/min)		0.01 (0.011)	0.01	0.01	0.045	0.045	0.67	16
kB Biliary clearance of metabolite (ml/min)		0.074 (0.073)	0.074		0.3	0.3	0.7	1.8
kK Kidney clearance of metabolite (ml/min)		0.018 (0.0074)	0.018		0.03	0.03	0.041	0.15
KG Gut reabsorption of metabolite (h-1)		(0.016)	0		0.0096	0	0	0
KAS Absorption coefficient upper GI				0.415				
KAD Absorption coefficient Lower GI				0.077				
KT Elimination coefficient upper GI				10				
KE Elimination coefficient lower GI				0.073				
kF Fecal transport of metabolite (h^{-1})		(0.08)			0.048		0.04	0.04
F Fraction of preferential excretion by the liver (*km**(1-*F*)							0.4	0.4
PAFC Diffusion permeation constant in fat				10				

Hexachloroethane	
Species	Rat
Reference	**50**
Partition coefficients	
Blood/air	62.7
Liver/blood	5.88
Slowly perfused/blood	1.2
Fat/blood	52.9
Biochemical parameters	
VmaxC (mg/h/kg)	1.97
Km (mg/L)	0.8

Isoprene			
Species	Mouse	Rat	Human
Reference	**40**	**40**	**40**
Partition coefficients			
Blood/air	2.04	2.33	0.75
Muscle/blood	0.73	0.64	1.97
Fat/blood	30.2	26.4	82.0
Liver/blood	0.95	0.83	2.57
Kidney/blood	0.86	0.75	2.33
Richly perfused/blood	0.91	0.79	2.45
Biochemical parameters			
Liver metabolism			
Vmax mo1 (µmol/h)	9.18	24.8	1060 and 1690
Km (mmol/l)	0.004	0.002	0.002
Richly perfused tissues metabolism			
Vmax mo2 (µmol/h)	1.02	2.75	118 and 188
Km (mmol/l)	0.004	0.002	0.002
Endogenous production rate (µmol/h)			23.8

Isopropanol		
Species	Rat	Human
Reference	**18**	**18**
Partition coefficients		
Blood/air	1290	848
Brain/blood	0.88	1.33
Fat/blood	0.21	0.32
Liver/blood	0.76	1.16
Rapidly perfused/blood	0.79	1.25
Slowly perfused/blood	0.85	1.3
Saline/air	1500	1500
Mucus/air	1290	848
Biochemical parameters		
VmaxC (mg/h/kg)	150	300
Km (mg/L)	500	10
CLmuc Clearance into upper respiratory tract (L/h/kg)	11	11
Clur Urinary clearance (L/h)		0.004
KTD Fecal clearance (h^{-1})	0.25	0
P Skin permeability coefficient (cm/h)	0.008	
KAS First-order absorption stomach/peritoneum (h^{-1})	2.0	1.0
KTSD Transfer from stomach to duodenum (h^{-1})	3.0	10.0
KAD First-order absorption from duodenum (h^{-1})	0.5	8.0

Lead				
Species	Rat (absence of As-Ac)	Rat (presence of As-Ac)	Rat	Human
Reference	**31**	**31**	**106**	**107**
Partition ceofficients				
RBC/plasma	46.3	43.8		
Liver/plasma	2094.1	1632.4	75	100
Lung/plasma	800	732.4		
Bone/plasma	5756	4051	6000	1000
Kidney/plasma	2445.6	2305	variable	100
Carcass/plasma	200	539.3		
Well-perfused/plasma			75	100
Poorly perfused/plasma			20	20
Mass transfer coefficient of drug from plasma to lung	500	516		
Mass transfer coefficient of drug from plasma to bone	1216.2	445.7		
Mass transfer coefficient of drug from plasma to kidney	803	449.5		
Mass transfer coefficient of drug from bone to plasma	2860	1369		
Mass transfer coefficient of drug from kidney to plasma	569	536.5		
Biochemical parameters				
Max binding capacity in blood (mg/L)			10	2.7
Half-saturation concentration of binding in blood (mg/L)			0.067	0.0075
Fractional Cl of lead into forming bone (liters plasma cleared/liter new bone formed)			15000	15000
Elimination clearance (liter/day/kg)			14	Var
Within-bone movement permeability coefficient (cm/day/unit)			8.0 x10-^{7}	1.0 x10^{-7}
Bone-to-plasma transfer permeability coefficient (cm/day/unit)			8.0 x10^{-7}	1.0 x10^{-7}
Plasma-to-bone transfer permeability coefficient (cm/day/unit)			0.1	0.08

Lindane	
Species	Rat
Reference	**33**
Coefficients partition	
Liver/blood	4.2
Fat/blood	95.3
Slowly perfused/blood	1.6
Brain/blood	4.1
Biochemical parameters	
Biotransformation rate (hr^{-1}. kg^{-1})	4.5
Oral /intraperitonial uptake rate (h^{-1})	0.035
Oral /intraperitonial uptake efficiency	0.8

Methyl Mercury			
Species		Rat	Rat
Reference		**38**	**55**
Partition coefficients			
	Liver/blood	0.18	
	Liver/plasma		14.2
	Kidney/blood	1.5	
	Kidney/plasma		164
	Brain/blood	0.08	
	Brain/plasma		11.1
	Skin/blood	0.08	
	Skin/plasma		14.2
	GI tissue/blood	0.1	
	GI lumen/tissue	0.28	
	Urine/blood	0.008	
	Carcass/blood	0.1	
	RBC/plasma		302
	Muscle/plasma		14.5
	Transport process		
	Blood to brain(ml blood/min/g tissue)	3.50×10^{-5}	
	Blood to carcass (ml blood/min/g tissue)	7.70×10^{-4}	
	Blood to liver (ml blood/min/g tissue)	9.10×10^{-4}	
	Blood to kidney (ml blood/min/g tissue)	2.00×10^{-2}	
	Blood to skin (ml blood/min/g tissue)	1.00×10^{-3}	
	Blood to GI tissues (ml blood/min/g tissue)	8.60×10^{-3}	
	GI tissue to lumen(ml tissue/min/g tissue)	1.00×10^{-2}	
	Skin to hair (ml skin/min/g skin)	1.20×10^{-4}	
	Membrane transfer constants (min^{-1})		
	Liver		0.506
	Kidney		1.55

	Brain		0.028
	RBC		1.0
	Muscle		0.063
	Skin		0.506
Biochemical parameters			
	Biliary clearance ratio of NPSH compounds from liver to mercury from liver	0.5	
	Biliary secretion rate kB (excr. rate/liver MeHg mass) (min^{-1})		0.0021
	Demethylation in GI lumen (min^{-1})	3.00×10^{-3}	
	Demethylation in liver (min^{-1})	2.00×10^{-4}	
	Loss of mercuric mercury from kidney via exfoliation of tubular cells (min^{-1})	2.80×10^{-6}	
	Loss of mercury in hair to surroundings (min^{-1})	2.40×10^{-6}	
	Ingestion of mercury in hair during grooming (min^{-1})	3.40×10^{-6}	
	Gut reabsorption rate kA (reabsoption rate/excr. rate x gut vol./fecal flow rate) (min^{-1})		0.0026
	Excretion rate (average over 10 days) (mg/min)		8.68×10^{-6}
	Reabsorption rate (average over 10 days) (mg/min)		7.99×10^{-6}

Inorganic Mercury		
Species		Rat
Reference		**38**
Partition ceofficients		
	Liver/blood	11.5
	Kidney/blood	600
	Brain/blood	0.8
	Skin/blood	2.7
	GI tissue/blood	0.45
	GI lumen/tissue	10
	Urine/blood	
	Carcass/blood	0.45
Biochemical parameters		
	Transport process	
	Blood to brain(ml blood/min/g tissue)	3.20×10^{-5}
	Blood to carcass (ml blood/min/g tissue)	3.10×10^{-4}
	Blood to liver (ml blood/min/g tissue)	9.10×10^{-2}
	Blood to kidney (ml blood/min/g tissue)	8.40×10^{-3}
	Blood to skin (ml blood/min/g tissue)	4.20×10^{-4}
	Blood to GI tissues (ml blood/min/g tissue)	3.50×10^{-3}
	GI tissue to lumen(ml tissue/min/g tissue)	2.00×10^{-4}
	Skin to hair (ml skin/min/g skin)	1.20×10^{-4}
	Renal filtration clearance of mercuric mercury (ml blood/min/g kidney)	3.50×10^{-4}
	Biliary clearance ratio of NPSH compounds from liver to mercury from liver	3
	Loss of mercuric mercury from kidney via exfoliation of tubular cells	2.80×10^{-6}

Methanol						
Species		Mouse	Rat	Rat	Monkey	Human
Reference		**143**	**61**	**143**	**61**	**61**
Partition coefficients						
	Blood/air		1349		1349	1349
	Liver/blood	1.06	1.6	1.6	1.6	1.6
	Kidney/blood	0.731	1.3	1.3	1.3	1.3
	Rapidly perfused /blood	1.06	1.3	1.6	1.3	1.3
	Slowly perfused /blood	0.649	1.1		1.1	1.1
	Fat/blood	0.083		1.1		
	Conceptus/blood	1.12				
Biochemical parameters						
	Methanol					
	VmaxC 1 (mg/h/kg)	134	15.41	63.2	15.41	15.41
	Km1 (mg/L)	48.7	33.92	44.8	33.92	33.92
	VmaxC 2 (mg/h/kg)		7		33.43	33.43
	Km2 (mg/L)		15		394	384
	Formaldehyde					
	VmaxC (mmol/h/kg)		7.69		7.69	7.69
	Km (mmol/L)		0.127		0.127	0.127
	Formate					
	VmaxC (mmol/h/kg)		0.995		0.995	0.995
	Km (mmol/L)		1.97		4.86	4.86
	Renal extraction efficiencies					
	Methanol		0.007		0.007	0.007
	Formate		0.25		0.25	0.25
	First-order pathway for MeOH elimination (h^{-1})			0.069		
	Kaf Fast oral absorption constant (h^{-1})	16.8		8.18		
	Kas Slow oral absorption constant (h^{-1})	4.53		0.2		
	Kf % of MeOH absorbed via fast oral absorption	68		50.4		

Methoxyethanol (2-)				
Species	Mouse	Mouse	Rat	Human
Reference	**16**	**130**	**53**	**53**
Partition coefficients				
Blood/air	34913	34913	32800	N/A
Liver/blood	1.02	1.02	1.0	1.1
Poorly perfused/blood	0.93	0.93	0.94	0.5
Richly perfused/blood	1.02		1.1	1.05
Fat/blood	0.05	0.05	0.04	0.034
Biochemical parameters				
$Vmax_{MA}$ (mmol/h/kg)	2.4	2.4		
Km_{MA} (mmol/L)	0.15	0.15		
$Vmax_{EG}$ (mmol/h/kg)	0.16	0.16		
Km_{EG} (mmol/L)	0.0083	0.0083		
Kmaac 2-ME to MAA (L/h/kg liver)			31	4.9
Kegc 2-ME to EG (L/h/kg liver)			4.03	0.3
Ka_{po} Absorption from GI tract (h^{-1})	14.375			
Urinary excretion (L/h)			0.004	0.3

Methyl ter-butyl ether		
Species	Rat	Human
Reference	**12**	**91**
Partition coefficients		
Blood/air	11.5	17.7
Kidney/blood	3.11	0.72
Liver/blood	1.18	0.72
Richly perfused/blood	1.18	0.72
Fat/blood	10.05	4.79
Poorly perfused/blood	0.57	1.18
Biochemical parameters		
VmaxC pathway A (µmol/h/kg)	104.4	33.8
Km pathway A (µM)	264.3	61.7
VmaxC pathway B (µmol/h/kg)	8.3	6.2
Km pathway B (µM)	1.4	3.8

Methylethylketone		
Species	Rat	Human
Reference	**132**	**119**
Partition coefficients		
Blood/air	138	125
Lung/blood		0.82
GI Tract/blood		0.86
Liver/blood	1.10	0.86
Richly perfused/blood	1.10	0.86
Poorly perfused/blood	1.34	0.86
Fat/blood	0.73	1.30
Muscle/blood		0.82
Saline:air	143	
Biochemical parameters		
Vmax (µmol/min)		30.0
VmaxC (mg/h/kg)	5.44	
Km (mg/L)	0.63	0.144
Kfo First-order metabolic pathway constant (h^{-1})	4.1	
Ka Absorption rate constant IP (h^{-1})	0.91	
Kas Absorption rate constant oral (h^{-1})	1.86	

***m*-Xylene**									
Species	Rat	Rat	Rat	Human	Human	Human	Human	Human	Human
Reference	**128**	**129**	**58**	**67**	**82**	**129**	**96**	**60**	**63**
Partition coefficients									
Blood/air	46	46	46	26.4	26.4	26.4	19	26.4	34
Liver/blood	1.97	1.98	1.98	3.02	3.02	3.44	14.67	3.44	3.32
Slowly perfuseds/blood	0.91	0.91	0.91	2.01	2.01	1.59	2.79	1.59	
Richly perfused/blood	1.97	1.98	1.98	4.42	4.42	3.44	6.14	3.44	
Fat/blood	40.4	40.41	40.41	77.8	77.8	70.42	98.63	70.42	89.26
Lung /blood				4.09	4.09				
GI tract/blood				4.67	4.67				
Muscle + skin/blood				3.01	3.01				1.79
Muscle/blood							12.34		
Skin/blood							2.65		
Brain/blood									3.65
Kidneys/blood									1.82
Others/blood									2.32
Biochemical parameters									
VmaxC (mg/h/kg)	8.4	5.5	6.49	8.88 – 7.10		5.5	8.2	6.49	8.4
Km (mg/L)	0.2	0.20	0.45	3.5 - 35.04		0.20	0.1	0.45	0.2
Hepatic clearance (l/min)					2.16				
Kp Skin permeability constant (m/h)							0.005		
Inhibition constants (mg/L)									
Ki competitive (toluene)	0.6	0.77	0.328			0.77		0.33	
Ki competitive (benzene)			0.216					0.22	
Ki competitive (ethylbenzene)		1.5	1.667			1.5		1.67	0.23
Ki competitive (Dichloromethane)			0.322					0.32	
Metabolite (MHA)									
Urinary excretion rate MHA (h^{-1})				0.72	0.72				1.386
Fraction transformed in MHA							0.93		
K1 Removal of MHA from blood (h^{-1})							1.5		
K2 Appearance of MHA in urine (h^{-1})							0.9		

Naphthalene			
Species		Mouse	Rat
Reference		**125**	**125**
Coefficients partition			
Fat/blood		796	796
Liver/blood		5.41	5.41
Lung/blood		0.627	0.627
Well-perfused tissues/blood		4	4
Muscle/blood		4.13	4,13
Kidney/blood		3.87	3.87
Biochemical parameters			
Lung RS			
	Vmax P450 (nmol/mg mp/min)	9	1.5
	Km N P450 (µM)	100	400
	Vmax EH (nmol/mg mp/min)	0.7	7
	Km NO EH (µM)	1	1
Lung SR			
	Vmax P450 (nmol/mg mp/min)	1,1	3.4
	Km N P450 (µM)	400	1540
	Vmax EH (nmol/mg mp/min)	7	11.5
	Km NO EH (µM)	12	12
Liver RS			
	Vmax P450 (nmol/mg mp/min)	7	1.8
	Km N P450 (µM)	310	400
	Vmax EH (nmol/mg mp/min)	2	3
	Km NO EH (µM)	1	1
Liver SR			
	Vmax P450 (nmol/mg mp/min)	7	7.3
	Km N P450 (µM)	310	800
	Vmax EH (nmol/mg mp/min)	8	4.9
	Km NO EH (µM)	12	12

Naphthalene Oxide			
Species		Mouse	Rat
Reference		**125**	**125**
Coefficients partition			
Fat/blood		796	796
Liver/blood		5.41	5.41
Lung/blood		0.627	0.627
Well-perfused tissues/blood		4	4
Muscle/blood		4.13	4.13
Kidney/blood		3.87	3.87
Biochemical parameters			
Lung			
	Vmax GST (nmol/mg cp/min)	22.5	400
	Km^{NO} GST (µM)	50	50
	Km^{GSH} GST (µM)	3300	3300
	K_{NOH} (nmol/µM NO/min)	0.25	0.25
	kb (nmol/mg tp/min)	2.00×10^{-4}	2.00×10^{-4}
	Cx GSHss (µM)	2200	1100
	kx GD (L/min)	0.002	0.003
	kx GSD¸ (L/min)	0.005	0.0025
	kx GSS (nmol/mg mp/min)	5.80×10^{-5}	2.10×10^{-5}
	Km GS (µM)	2000	2000
	Qty of microsomes (mg/g)	3.7	3.7
Liver			
	Vmax GST (nmol/mg cp/min)	150	500
	Km^{NO} GST (µM)	50	50
	Km^{GSH} GST (µM)	3300	3300
	K_{NOH} (nmol/µM NO/min)	0.25	0.25
	kb (nmol/mg tp/min)	2.00×10^{-4}	2.00×10^{-4}
	Cx GSHss (µM)	6600	5500
	kx GD (L/min)	0.006	0,003
	kx GSD (L/min)	0.005	0.0025
	kx GSS (nmol/mg mp/min)	2.40^{E}-04	3.70E-04
	Km GS (µM)	2000	2000
	Qty of microsomes (mg/g)	16.4	16.4

Nicotine	
Species	Rat
Reference	**113**
Coefficients partition	
Muscle/blood	1.1
Skin/blood	1.1
Fat/blood	0.2
Liver/blood	7.0
Kidney/blood	24.8
Brain/blood	1.4
Heart/blood	0.6
Lung/blood	0.9
Poorly perfused/blood	6.4
Biochemical parameters	
Metabolic constants	
Vmax Metabolism of nicotine to cotinine (µmol/h)	≥ 7.6
Km Michaelis constnat of nicotine to cotinine (µM)	≥ 9
KNC First-oder rate constant metabolism to cotinine (h^{-1})	75.8
KNP First-oder rate constant metabolism to polar metabolites (h^{-1})	24.3
KCP First-order rate transformation cotinine to polar metab. (h^{-1})	<0.001
Nicotine binding constants	
Bmax Maximum binding capacity (nmol/heart)	0.039
Bmax Maximum binding capacity (nmol/brain)	0.009
Bmax Maximum binding capacity (nmol/lung)	0.039
KD Dissociation constant (heart) nM	0.12
KD Dissociation constant (brain) nM	0.12
KD Dissociation constant (lung) nM	2.04

Nitropyrene (1-)		
Species		Rat
Reference		**104**
Coefficients partition		
Kidney/blood		1
Liver/blood		1
Lung/blood		0.5
Other tissues/blood		0.5
Biochemical parameters		
Rate cst (h^{-1})		
	GI absorption	2
	Metabolism	30
	Urinary excretion	4
	Biliary excretion	2
Covalent Binding formation (h^{-1})		
	Lung	0.05
	liver	0.05
	Kidney	0.1
	Other tissues	0.001
Covalent Binding removal (h^{-1})		
	Lung	0.02
	liver	0.02
	Kidney	0.004
	Other tissues	0.01

***n*-Hexane (2,5 Hexadione)**			
Species	Rat	Human	Human
Reference	**2**	**110**	**2**
Partition coefficients			
Blood/air	2.29	0.8	0.8
Liver/blood	2.27	6.5	6.5
Rapidly perfused/blood	2.27	5	6.5
Poorly perfused/blood	1.27	6.2	3.63
Fat/blood	69.43	130	198.75
Biochemical parameters			
VmaxC (mg/h/kg)	1.35		1.35
Km (mg/L)	0.4		0.4
Ki Competitive inhibition constant (toluene)	0.059		0.059
K1 Rate of hexane disapearance (min^{-1})		0.3	
K2 Rate of 2,5-hexanedione formation (min^{-1})		0.012	

Parathion		
Species		Mouse
Reference		**124**
Coefficients partition		
Liver/blood		6.56
Lung/blood		2.55
Brain/blood		3.51
Diaphragm/blood		1.37
Fat/blood		11.84
Rapidly perfused/blood		6.56
Slowly perfused/blood		4.51
Biochemical parameters		
Oxydative activation		
	Vmax (mg/hr)	2.07
	Km (mg/L)	7.21
Detoxification		
	Vmax (mg/hr)	1.78
	Km(mg/L)	7.22

***p*-Chlorobenzotrifluoride (PCBTF)**		
Species	Rat	Human
Reference	**76**	**76**
Partition coefficients		
Parent compound (PCBTF)		
Blood/air	43.7	16.7
Liver/blood	1.17 (1.197)	3.07
Rapidly perfused/blood	0.86	2.26
Slowly perfused/blood	2.45	6.41
Fat/blood	22.4 (27.9)	58.6
Kidney/blood	0.86 (1.22)	2.26
Brain/blood	0.92 (1.33)	2.40
Metabolite (3-OH PCBTF)		
Liver/blood	1.11	1.11
Rapidly perfused/blood	1.09	1.09
Slowly perfused/blood	0.78	0.78
Fat/blood	20.0	20.0
Kidney/blood	1.31	1.31
Metabolite (2,3-diOH PCBTF)		
Liver/blood	1.0	1.0
Rapidly perfused/blood	1.0	1.0
Slowly perfused/blood	1.0	1.0
Fat/blood	20.0	20.0
Kidney/blood	1.0	1.0
Biochemical parameters		
PCBTF to 3-OH PCBTF		
Vmax1C (µmol/h/kg)	1.0	1.0
Km1 (µM)	65.7	65.7
PCBTF to 2,3-diOH PCBTF		
Vmax2C (µmol/h/kg)	1.0	1.0
Km2 (µM)	65.7	65.7
PCBTF glutathione conjugaison		
KCSC (h^{-1}. kg^{-1})	5.0×10^{-5}	5.0×10^{-5}
3-OH PCBTF glucuronic acid conjugaison		
Vmax4C (µmol/h/kg)	60	60
Km4 (µM)	12	12
2,3-diOH PCBTF glucoronic acid conjugaison		
Vmax5C (µmol/h/kg)	60	60
Km5 (µM)	12	12

Pentachlorobiphenyl (2,2',4,5,5'-) (5-CB)			
Species		Mouse	Rat
Reference		**136**	**136**
Coefficients partition			
Parent coumpound			
	Muscle/blood	5 (1)	1.0
	Skin/blood	20 (7)	7
	Fat/blood	200 (70)	70
	Liver/blood	14 (6)	6
	Gut lumen/blood		1
Metabolite			
	Muscle/blood	(0.1)	0.1
	Skin/blood	(0.1)	0.1
	Fat/blood	(0.4)	0.4
	Liver/blood	(2)	2
	Gut lumen/blood		1
Biochemical parameters			
km Metabolic clearance DCB (ml/min)		(0.095)	0.39
kB Biliary clearance of metabolite (ml/min)		0.0088 (0.01)	0.30
kK Kidney clearance of metabolite (ml/min)		0.00883 (0.00817)	0.033
KG Gut reabsorption of metabolite *(h^{-1})*		(0.016)	0.010
kF Fecal transport of metabolite *(h^{-1})*		(0.08)	0.048

Pentachloroethane	
Species	Rat
Reference	**50**
Partition coefficients	
Blood/air	104
Liver/blood	2.5
Slowly perfused/blood	0.7
Fat/blood	39.6
Biochemical parameters	
VmaxC (mg/h/kg)	9.7
Km (mg/L)	0.9

Pentafluoroethane (HFC-125)	
Species	Human
Reference	**140**
Partition coefficients	
Blood/air	0.12
Liver/blood	2.17
Rapidly perfused/blood	2.17
Poorly perfused/blood	2.83
Fat/blood	3.75
Gut/blood	3.08
Biochemical parameters	
VmaxC (mg/h/kg)	0
Km (mg/L)	N/A

Phthalate Di(2-ethylhexyl)		
Species		Rat
Reference		**73**
Coefficients partition		
Parent compound (DEHP)		
	Liver/blood	21.8
	Fat/blood	351
	Muscle/blood	6.1
	Testes/blood	6.5
Metabolite (MEHP)		
	Liver/blood	1.7
	Fat/blood	0.12
	Muscle/blood	0.38
	Testes/blood	1.02
Biochemical parameters		
Parent coumpound (DEHP)		
	Vmax metabolism in small intestine (mg/h/kg)	100
	Km metabolism in small intestine (mg/L)	18
	Kl (L/h)	0.18
	Ka First-order absorption rate (oral) (L/h)	0.04
	kb First-order metabolism in blood ($h^{-1}.kg^{-1}$)	1.0×10^{-6}
	kl First order metabolism in liver ($h^{-1}.kg^{-1}$)	0.44
Metabolite (MEHP)		
	Vmax metabolism in liver (mg/h/kg)	12
	Km metabolism in liver (mg/L)	0.5
	Ka First-order absorption rate (oral) (L/h)	7

Polychlorotrifluoroethylene oligomer (Trimer)	
Species	Rat
Reference	**138**
Partition coefficients	
Blood/air	33 *
Liver/blood	15
Kidney/blood	12.8
Rapidly perfused/blood	12
Slowly perfused/blood	2.25
Fat/blood	400
Perirenal fat/blood	400
Fat diffusion constant	0.33 x Qf
Perirenal fat diffusion constant	0.085 x Qpr
Biochemical parameters	
Kf First order metabolism rate constant (h^{-1})	2
KEX First order excretion rate (h^{-1})	0.015
Fluoride	
K0 First order fluoride from bone rate constant (h^{-1})	0.0016
K1 First order fluoride to bone and urine rate constant (h^{-1})	0.82

* Blood:air partition coefficient in subchronic exposures : 50-100

Polychlorotrifluoroethylene oligomer (Tetramer)	
Species	Rat
Reference	**138**
Partition coefficients	
Blood/air	35 *
Liver/blood	20
Kidney/blood	7.2
Rapidly perfused/blood	12
Slowly perfused/blood	2.25
Fat/blood	750
Perirenal fat/blood	750
Fat diffusion constant	0.5 x Qf
Perirenal fat diffusion constant	0.02 x Qpr
Biochemical parameters	
Kf First order metabolism rate constant (h^{-1})	1
KEX First order excretion rate (h^{-1})	0.0006
Fluoride	
K0 First order fluoride from bone rate constant (h^{-1})	0.0016
K1 First order fluoride to bone and urine rate constant (h^{-1})	0.82

* Blood:air partition coefficient in subchronic exposures : 175-200

Pyrene		
Species		Rat
Reference		**57**
Coefficients partition		
	Liver/plasma	2.37
	Lung/plasma	2.25
	Fat/plasma	11.84
	Richly perfused/plasma	1.71
	Slowly perfused/plasma	1.58
Biochemical parameters		
	Metabolic constants	
	Vmax Maximal velocity (mg/min/kg)	0.04
	Km Michaelis affinity constant (mg/L)	5.61
	Diffusion constants	
	Flu Lung	1.0
	FR Richly perfused	1.0
	FS Slowly perfused	0.01
	FF Fat	0.1
	FL Liver	1.0
	Protein binding	
	Maximal binding (mg/L)	
	BML Liver *Ah* receptors	7.90×10^{-5}
	BMML Liver proteins	70
	BMMLu Lung proteins	40
	Binding association constants $(mg/l)^{-1}$	
	KBL Liver *Ah* receptors	9.889
	KBBL Liver proteins	5
	KBBLu Lung proteins	5
	Oral absorption rate constant (h^{-1})	0.035

Styrene				
Species	Mouse	Mouse	Mouse	Mouse
Reference	**114**	**24**	**84**	**120**
Partition coefficients				
Blood/air	40	110	40	40
Liver/blood	2.7	1.18	2.7	2
Rapidly perfused/blood	5.7	1.14	5.7	1.3
Muscle/blood	1	0.86	1	1.3
Fat/blood	50	40.9	50	87
Brain/blood				
Biochemical parameters				
Cytochrome P-450				
Vmax Liver (mg/h/g liver)		1.135		1.250
Vmax Liver (mg/h)	0.58		1.349	
Vmax Upper airways (nmol/min/ml tissue)				183
Vmax Transitional airways (nmol/min/ml tissue)				362
Km (mg/L)	0.36	1.35	0.364	1.04
ST/SO tissue-phase diffusity (cm2/min)				2.0×10^{-4}
ST/SO air-phase diffusity (cm2/min)				6
Kpo Uptake p.o. (L/h)		0.8		
Kip Uptake i.p. (L/h)		3		

Styrene				
Species	Rat	Rat	Rat	Rat
Reference	**114**	**4**	**24**	**120**
Partition coefficients				
Blood/air	40	40.2	110	40
Liver/blood	27	3.46	1.18	2
Rapidly perfused/blood	5.7		1.14	1.3
Muscle/blood	1	1.17	0.86	1.3
Fat/blood	50	86.47	40.9	87
Brain/blood				
Biochemical parameters				
Cytochrome P-450				
Vmax Liver (mg/h/g liver)			0.583	0.312 – 0.937
Vmax Liver (mg/h)	3.6	3.6		
Vmax Upper airways (nmol/min/ml tissue)				98
Vmax Transitional airways (nmol/min/ml tissue)				46.4
Km (mg/L)	0.36	0.4	1.56	1.04
ST/SO tissue-phase diffusity (cm2/min)				2.0×10^{-4}
ST/SO air-phase diffusity (cm2/min)				6
Kpo Uptake p.o. (L/h)			0.5	
Kip Uptake i.p. (L/h)			3	

Styrene					
Species	Human	Human	Human	Human	Human
Reference	**114**	**4**	**24**	**111**	**120**
Partition coefficients					
Blood/air	52	51.9	48	52	48
Liver/blood	2.7	2.68	2.71	2.7	2
Rapidly perfused/blood	5.7		2.6	5.7	1.3
Muscle/blood	1	0.91	1.96	1	1.3
Fat/blood	50	86.47	93.8	106	50
Brain/blood				2.1	
Biochemical parameters					
Cytochrome P-450					
Vmax Liver (mg/h/g liver)			0.208		0.312
Vmax Liver (mg/h)	184	165		186	
Vmax Upper airways (nmol/min/ml tissue)					50
Vmax Transitional airways (nmol/min/ml tissue)					1.7
Km (mg/L)	0.36	0.4	1.04	0.36	1.04
ST/SO tissue-phase diffusity (cm2/min)					2.0×10^{-4}
ST/SO air-phase diffusity (cm2/min)					6
Kpo Uptake p.o. (L/h)					
Kip Uptake i.p. (L/h)					

Styrene-7,8-oxide		
Species	Mouse	Mouse
Reference	**24**	**120**
Partition coefficients		
Blood/air		2000
Liver/blood	2.6	1
Rapidly perfused/blood	2.6	0.6
Muscle/blood	1.5	0.6
Fat/blood	6.1	14
Biochemical parameters		
Epoxide hydrolase		
Vmax Liver (mmol/h/g tissue)	0.011	0.012
Kmih (mmol/L)	0.009	0.1
GST		
Vmax GST Liver (mmol/h/g tissue)	0.29	0.66
Vmax Upper airways (mmol/h/ml tissue)		0.06
Vmax Transitional airways (mmol/h/ml tissue)		0.06
Km GST (mmol/L)		2.5
Km SO (mmol/L)	2.5	0.7
Km GSH (mmol/L)	0.1	
Liver GSH basal conc (mmol/L)	5.5	8.3
Upper airways GSH basal conc (mmol/L)		1.0
Transitional airways GSH basal conc (mmol/L)		1.0
Kd First order elimination GSH (L/h)	0.1	
GSH production rate (h^{-1})		0.72
Kpo Uptake p.o. (L/h)	0.2	
Khydr Uptake p.o. (L/h)	6.9	
Kip Uptake i.p. (L/h)	5	

Styrene-7,8-oxide		
Species	Rat	Rat
Reference	**24**	**120**
Partition coefficients		
Blood/air		2000
Liver/blood	2.6	1
Rapidly perfused/blood	2.6	0.6
Muscle/blood	1.5	0.6
Fat/blood	6.1	14
Biochemical parameters		
Epoxide hydrolase		
Vmax Liver (mmol/h/g tissue)	0.011	0.015
Kmih (mmol/L)	0.013	0.1
GST		
Vmax GST Liver (mmol/h/g tissue)	0.37	0.378
Vmax Upper airways (mmol/h/ml tissue)		0.06
Vmax Transitional airways (mmol/h/ml tissue)		0.06
Km GST (mmol/L)		2.5
Km SO (mmol/L)	2.5	0.7
Km GSH (mmol/L)	0.1	
Liver GSH basal conc (mmol/L)	5.5	6.3
Upper airways GSH basal conc (mmol/L)		2.5
Transitional airways GSH basal conc (mmol/L)		1.0
Kd First order elimination GSH (L/h)	0.2	
GSH production rate (h^{-1})		0.72
Kpo Uptake p.o. (L/h)	0.6	
Khydr Uptake p.o. (L/h)	6.9	
Kip Uptake i.p. (L/h)	5	

Styrene-7,8-oxide			
Species		Human	Human
Reference		**24**	**120**
Partition coefficients			
	Blood/air		2000
	Liver/blood	2.6	1
	Rapidly perfused/blood	2.6	0.6
	Muscle/blood	1.5	0.6
	Fat/blood	6.1	14
Biochemical parametes			
	Epoxide hydrolase		
	Vmax Liver (mmol/h/g tissue)	0.0045	0.054
	Kmih (mmol/L)	0.001	0.1
	GST		
	Vmax GST Liver (mmol/h/g tissue)	0.028	0.084
	Vmax Upper airways (mmol/h/ml tissue)		0.018
	Vmax Transitional airways (mmol/h/ml tissue)		0.018
	Km GST (mmol/L)		2.5
	Km SO (mmol/L)	2.5	0.5
	Km GSH (mmol/L)	0.1	
	Liver GSH basal conc (mmol/L)	5.9	6
	Upper airways GSH basal conc (mmol/L)		1.0
	Transitional airways GSH basal conc (mmol/L)		1.0
	Kd First order elimination GSH (L/h)	0.2	
	GSH production rate (h^{-1})		0.72

Tetrabromodibenzo-p-dioxin (2,3,7,8-) (TBDD)	
Species	Rat
Refernce	**70**
Partition coefficients	
Richly perfused/blood	10
Slowly perfused/blood	10
Fat/blood	1000
Skin/blood	100
Liver/blood	10
Biochemical parameters	
Diffusional Clearances (l/h)	
PAl Liver	1.0 × Ql
PArp Richly perfused	1.0 × Qrp
PAf Fat	0.1× Qf
PAsk Skin	0.015 × Qsk
PAsp Slowly perfused	0.05 × Qsp
KAB Blood binding constant	9,0
Dispositional rate constants	
KF First-order metabolic rate constant (h^{-1} . Kg^{-1})	2
Kp Excretion rate of parent (h^{-1} . kg^{-1})	0.015
KI Excretion rate of impurity (h^{-1})	0.5
KEX Fecal excretion rate (h^{-1})	0.075
KE Excretion rate of unabsorbed oral dose (h^{-1})	0.1
KA Oral absorption (h^{-1})	0.5
KDE Dermal absorption (h^{-1})	0.2
Ah Receptor caracteristics	
BM1 *Ah* receptor (pmol/liver)	3.75
KB1 *Ah* receptor affinity (pM)	35
CYP1A2	
BM2T Basal amount (nmol)	12
K1A2 Degradation rate (h^{-1})	0.03
K0A2 Synthesisi rate (nmol/h)	0.36
K0MAX2 Maximum synthesis increase (fold)	10
KB2 1A2-dioxin binding constant (nM)	9
N2 Hill term	1.4
KD2 1A2-DNA binding constant (pM)	0.03
CYP1A1	
IND Basal amount (nmol)	0.1
K1A1 Degradation rate (h^{-1})	0.035
K0A1 Synthesisi rate (nmol/h)	0.0035
K0MAX1 Maximum synthesis increase (fold)	500
N1 Hill term	1
KD1 1A1-DNA binding constant (pM)	0.045

Tetrachlorodibenzofuran (2,3,7,8-) (TCDF)				
Species	Mouse C57	Mouse DBA	Rat	Monkey
Reference	**75**	**75**	**75**	**75**
Distribution ratio				
Liver/blood	130	100	30	30
Fat/blood	25	40	35	30
Skin/blood	8	12	4	7
Muscle/blood	2	4	2	2
Biochemical parameters				
Metabolic clearance (ml/min)	0.07	0.06	1	2.25
Metabolites excretion ratio (urinary/biliary)	0.14	0.27	0.03	0.19

Tetrachlorodibenzo-*p*-dioxin (2,3,7,8-) (TCDD)			
Species		Mouse	Mouse
Reference		C57BL/6J	DBA/2J
Parameters		**87**	**87**
Coefficients partition			
	Liver/blood (free??)	20	20
	GI/blood (free??)		
	Fat/blood (free??)	350	350
	Viscera/blood (free??)		
	Richly perfused/blood (free??)	20	20
	Slowly perfused/blood (free??)	250	250
	Muscle/blood (free??)		
	Skin/blood (free??)		
	Liver/total blood		
	Fat/total blood		
	Skin/total blood		
	Kidney/total blood		
	Spleen/total blood		
	Lung/total blood		
	Rest of the body/total blood		
	Membrane transfer/ Transport factor /Diffusional clearance		
	Liver		
	Fat		
	Viscera		
	Richly perfused tissues		
	GI		
	Slowly perfused tissues		
	Muscle		
	Kidney		
	Skin		
	Rest of the body		

Biochemical parameters			
	k absorption ($kg^{0,75}$/day)		
	K proteolysis (day^{-1})		
	K endocytosis (day^{-1})		
	Excretion rate urine (day^{-1})		
	Excretion rate bile (day^{-1})		
	Excretion rate feces (day^{-1})		
	K conjugation (day^{-1})		
	K lysis (day^{-1})		
KA	GI absorption cst (h^{-1})	0.02	0.02
KFC	Metabolism constant (h^{-1})	3.25	1.75
KFC	First order metabolic rate cst (h^{-1} . Kg-1 liver)		
Fold	Induction cst (fold over basal)		
BASAL	AHH activity non-induced (nmol/min/g)		
MAXIND	AHH activity maximally-induced (nmol/min/g)		
KE	Excretion rate constant urine (h^{-1})		
	***Ah* Receptor caracteristics**		
BM1	*Ah* maximum/ Binding capacity to cytosolic protein in liver (pmol/liver)	4.2	4.2
KB1	*Ah* affinity/ Binding dissociation to cytosolic protein in liver (pmol/L)	290	2000
	TCDD-Ah-DNA interaction constant (nM)		
	Ah Receptor level in kidney (nM)		
	Ah Receptor level in skin (nM)		
	Ah Receptor level in liver(nM)		
	Ah Receptor level in lung (nM)		
	Ah Receptor level in spleen (nM)		
	CYP1A2		
	Basal level in liver (nmol/g)		
BM2-1	Max (nmol/liver)		
BM2-0	Binding capacity to microsomal prot. non-induced (nmol/liver)	20	20

BM21		Binding capacity to microsomal prot. induced (nmol/liver)		
KB2		Affinity (nM)		
KB2		Binding dissociation to microsomal protein (nmol/L)	20	75
n		Hill term		
Kd		Hill binding constant (pM)		
		Basal induction rate for CYP1A2 synthesis (nM/h)		
		Maximum fold of synthesis rate over basal rate		
		Degradation rate cst (L/h)		
		Hill coefficient (h)		
		Holding time (h)		
Binding of TCDD to hepatic induced protein (CYP1A2)		TCDD-CYP1A2 dissociation constant (nM)		
	CYP1A1			
		Hill term		
Kd1		Hill binding cst (pM)		
k1		Degradation rate cst (h^{-1})		
K0		Synthesis-basal rate cst (units/h)		
K0max		Maximum induction (fold)		
	Protein binding			
		Blood binding protein (nmol/L)		
KAB		Binding to blood (h^{-1})	2.5	2.5
BM1R		Binding capacity to cytosolic protein (pmol/richly perfused)		
BM1S		Binding capacity to cytosolic protein (pmol/slowly perfused)		

Tetrachlorodibenzo-*p*-dioxin (2,3,7,8-) (TCDD)			
Species		Mouse C57BL/6J	Rat
Reference		**87**	**87**
Coefficients partition			
	Liver/blood (free??)	10	20
	GI/blood (free??)		
	Fat/blood (free??)	300	350
	Viscera/blood (free??)		
	Richly perfused/blood (free??)	10	20
	Slowly perfused/blood (free??)	3	40
	Muscle/blood (free??)		
	Skin/blood (free??)	200	
	Liver/total blood		
	Fat/total blood		
	Skin/total blood		
	Kidney/total blood		
	Spleen/total blood		
	Lung/total blood		
	Rest of the body/total blood		
	Membrane transfer/ Transport factor /Diffusional clearance		
	Liver		
	Fat		
	Viscera		
	Richly perfused tissues		
	GI		
	Slowly perfused tissues		
	Muscle		
	Kidney		
	Skin		
	Rest of the body		

Biochemical parameters			
	k absorption ($kg^{0,75}$/day)		
	K proteolysis (day^{-1})		
	K endocytosis (day^{-1})		
	Excretion rate urine (day^{-1})		
	Excretion rate bile (day^{-1})		
	Excretion rate feces (day^{-1})		
	K conjugation (day^{-1})		
	K lysis (day^{-1})		
KA	GI absorption cst (h^{-1})	0.04	0.2
KFC	Metabolism constant (h^{-1})	1.0	
KFC	First order metabolic rate cst (h^{-1} . Kg^{-1} liver)		2
Fold	Induction cst (fold over basal)		
BASAL	AHH activity non-induced (nmol/min/g)		0.7
MAXIND	AHH activity maximally-induced (nmol/min/g)		27.5
KE	Excretion rate constant urine (h^{-1})	0.02	
	***Ah* Receptor caracteristics**		
	Ah maximum/ Binding capacity to cytosolic protein in liver		
BM1	(pmol/liver)	4.2	54
KB1	*Ah* affinity/ Binding dissociation to cytosolic protein in liver (pmol/L)	290	15
	TCDD-Ah-DNA interaction constant (nM)		
	Ah Receptor level in kidney (nM)		
	Ah Receptor level in skin (nM)		
	Ah Receptor level in liver(nM)		
	Ah Receptor level in lung (nM)		
	Ah Receptor level in spleen (nM)		
	CYP1A2		
	Basal level in liver (nmol/g)		
BM2-1	Max (nmol/liver)		
BM2-0	Binding capacity to microsomal prot. non-induced (nmol/liver)	1.75	25

BM21	Binding capacity to microsomal prot. induced (nmol/liver)		175
KB2	Affinity (nM)		
KB2	Binding dissociation to microsomal protein (nmol/L)	20	7
n	Hill term		
Kd	Hill binding constant (pM)		
	Basal induction rate for CYP1A2 synthesis (nM/h)		
	Maximum fold of synthesis rate over basal rate		
	Degradation rate cst (L/h)		
	Hill coefficient (h)		
	Holding time (h)		
Binding of TCDD to hepatic induced protein (CYP1A2)	TCDD-CYP1A2 dissociation constant (nM)		
	CYP1A1		
	Hill term		
Kd1	Hill binding cst (pM)		
k1	Degradation rate cst (h^{-1})		
K0	Synthesis-basal rate cst (units/h)		
K0max	Maximum induction (fold)		
	Protein binding		
	Blood binding protein (nmol/L)		
KAB	Binding to blood (h^{-1})	1.0	2.5
BM1R	Binding capacity to cytosolic protein (pmol/richly perfused)	1.1	
BM1S	Binding capacity to cytosolic protein (pmol/slowly perfused)	12.6	

Tetrachlorodibenzo-*p*-dioxin (2,3,7,8-) (TCDD)				
Species		Rat Wistar	Rat	Rat S D (female)
Reference		**87**	**87**	
Coefficients partition				
	Liver/blood (free??)	20	20	
	GI/blood (free??)		20	
	Fat/blood (free??)	375	425	
	Viscera/blood (free??)		20	
	Richly perfused/blood (free??)	20		
	Slowly perfused/blood (free??)	30		
	Muscle/blood (free??)		30	
	Skin/blood (free??)			
	Liver/total blood			6
	Fat/total blood			100
	Skin/total blood			10
	Kidney/total blood			6
	Spleen/total blood			5
	Lung/total blood			6
	Rest of the body/total blood			1.5
	Membrane transfer/ Transport factor /Diffusional clearance			
	Liver	0.5 × Ql	0.6 × Ql	0.35 × Ql
	Fat	0.2 × Qf	0.06 × Qf	0.08 × Qf
	Viscera		0.3 × Qvs	
	Richly perfused tissues	0.5 × Qrp		
	GI		0.3 × Qgi	
	Slowly perfused tissues	0.5 × Qsp		
	Muscle		0.1 × Qm	
	Kidney			0.01 × Qk
	Skin			0.09 × Qsk
	Rest of the body			0.03× Qre

Biochemical				
	k absorption ($kg^{0,75}$/day)		4.8	
	K proteolysis (day^{-1})		0.693	
	K endocytosis (day^{-1})		0.271	
	Excretion rate urine (day^{-1})		5.36	
	Excretion rate bile (day^{-1})		3.81	
	Excretion rate feces (day^{-1})		1.152	
	K conjugation (day^{-1})		56.693	
	K lysis (day^{-1})		200	
KA	GI absorption cst (h^{-1})		0.071	
KFC	Metabolism constant (h^{-1})	1.65		
KFC	First order metabolic rate cst (h^{-1} . Kg^{-1} liver)			
Fold	Induction cst (fold over basal)	1.0		
BASAL	AHH activity non-induced (nmol/min/g)			
MAXIND	AHH activity maximally-induced (nmol/min/g)			
KE	Excretion rate constant urine (h^{-1})		0.223	
	***Ah* Receptor caracteristics**			
	Ah maximum/ Binding capacity to cytosolic protein in liver			
BM1	(pmol/liver)	3.75		
KB1	*Ah* affinity/ Binding dissociation to cytosolic protein in liver (pmol/L)	35	270	100
	TCDD-Ah-DNA interaction constant (nM)			130
	Ah Receptor level in kidney (nM)			0.25
	Ah Receptor level in skin (nM)			0.05
	Ah Receptor level in liver(nM)			0.35
	Ah Receptor level in lung (nM)			0.35
	Ah Receptor level in spleen (nM)			0.1
	CYP1A2			
	Basal level in liver (nmol/g)	1.24		1.6
BM2-1	Max (nmol/liver)	85		
BM2-0	Binding capacity to microsomal prot. non-induced (nmol/liver)			

BM21	Binding capacity to microsomal prot. induced (nmol/liver)			
KB2	Affinity (nM)	6.5		
KB2	Binding dissociation to microsomal protein (nmol/L)			
n	Hill term	1.0		
Kd	Hill binding constant (pM)	50		
	Basal induction rate for CYP1A2 synthesis (nM/h)			160
	Maximum fold of synthesis rate over basal rate			600
	Degradation rate cst (L/h)			0.1
	Hill coefficient (h)			0.6
	Holding time (h)			0.25
Binding of TCDD to hepatic induced protein (CYP1A2)	TCDD-CYP1A2 dissociation constant (nM)			30
	CYP1A1			
	Hill term	2.3		
Kd1	Hill binding cst (pM)	180		
k1	Degradation rate cst (h^{-1})	0.035		
K0	Synthesis-basal rate cst (units/h)	0.7		
K0max	Maximum induction (fold)	50		
	Protein binding			
	Blood binding protein (nmol/L)		1.0	
KAB	Binding to blood (h^{-1})			
BM1R	Binding capacity to cytosolic protein (pmol/richly perfused)			
BM1S	Binding capacity to cytosolic protein (pmol/slowly perfused)			

Tetrachloroethane (1,1,1,2-)	
Species	Rat
Reference	**50**
Partition coefficients	
Blood/air	41.7
Liver/blood	2.12
Slowly perfused/blood	0.95
Fat/blood	51.5
Biochemical parameters	
VmaxC (mg/h/kg)	6.39
Km (mg/L)	0.9

Tetrachloroethane (1,1,2,2-)	
Species	Rat
Reference	**50**
Partition coefficients	
Blood/air	142
Liver/blood	1.38
Slowly perfused/blood	0.71
Fat/blood	26.5
Biochemical parameters	
VmaxC (mg/h/kg)	12.9
Km (mg/L)	0.8

Tetrachloroethylene								
Species	Mouse	Mouse	Rat	Rat	Rat	Rat	Rat	Rat
Reference	**144**	**118**	**144**	**79**	**51**	**14**	**30**	**118**
Partition coefficients								
Blood/air	16.9	16.9	18.9	12.9	18.9	33.5	19.6	18.85
Liver/blood	4.16	3.01	3.72	3.54	3.72	1.9	5.2	3.73
Rapidly perfused/blood	4.16	3.01	3.72		3.72	1.67		2.69
Muscle/blood	1.18		1.06		1.06		3	
Slowly perfused/blood		2.59		1.53		0.93		1.06
Fat/blood	121.9	48.28	121.7	100.9	86.67	42.35	152.5	86.84
Lung/blood							2.5	
Brain/blood							4.4	
Heart/blood							2.7	
Kidney/blood							4.4	
Rest of body/blood							3	
Milk/blood						12		
Biochemical parameters								
VmaxC (mg/h/kg)	1.80		0.19	0.528		0.03		
Vmax (mg/h)		0.355					0.009	0.325
Km (mg/L)	0.4	3.69	0.3	1.0		0.32	0.019	5.62
Kf (h^{-1})	1.84		2.73					
Kf (h^{-1}. kg^{-1})					0.3			
Ka Oral absorption in oil vehicle (min^{-1})	0.010							
Ka Oral absorption in polyethylene glycol vehicle (min^{-1})							0.025	

Tetrahydrofuran	
Species	Human
Reference	**34**
Partition coefficients	
Blood/air	145.3
Lungs/blood	1.0
Liver/blood	1.0
Kidneys/blood	1.0
Muscle and skin/blood	1.0
Brain/blood	1.0
Fat/blood	1.4
Others/blood	1.0
Urine/blood	1.1
Biochemical parameters	
Metabolic clearance (L/min)	100

Toluene									
Species	Rat	Rat	Rat	Rat	Rat	Human	Human	Human	Human
Reference	**128**	**32**	**128**	**2**	**58** **59**	**82**	**128**	**2**	**60**
Partition coefficients									
Blood/air	18	18	18	18	18	15.6	15.6	15.6	15.6
Liver/blood	4.64	4.6	4.64	4.64	4.64	3.08	5.36	5.36	5.36
Slowly perfuseds/blood	1.54	1.5	1.54	1.54	1.54	1.67	1.78	1.78	1.78
Richly perfused/blood	4.64	4.6	4.64	4.64	4.64	2.2	5.36	5.36	5.36
Fat/blood	56.7	56.7	56.72	56.72	56.72	69	65.45	65.45	65.45
Brain/blood		2.0							
Lung /blood						1.4			
GI tract/blood						3.08			
Muscle + skin/blood						2.2			
Biochemical parameters									
VmaxC (mg/h/kg)	4.8	*	4.8	4.8	3.44	4.8	4.8	4,8	3.44
Km (mg/L)	0.55	*	0.55	0.55	0.13	0.55	0.55	0,55	0.13
Inhibition constants (mg/L)									
Ki competitive (dichloromethane)					0.155				0.16
Ki competitive (m-xylene)	0.35		0.17		0.357		0.17		0.36
Ki competitive (benzene)					0.144				0.14
Ki competitive (ethylbenzene)			0.79		0.948		0.79		0.95
Ki competitive (n-Hexane)				1.11				1.11	

* Values reported from 8 studies published in the litterature. VmaxC: 3.69-7.5 mg/h/kg; Km : 0.3-11.96 mg/L

Trichlorobromomethane	
Species	Rat
Reference	**131**
Partition coefficients	
Blood/air	18.2
Liver/blood	2.3
Muscle/blood	1.5
Fat/blood	60
Biochemical parameters	
Control	
VmaxC (mg/h/kg)	3.55
Km (mg/L)	0.5
Kfc ($h^{-1}. kg^{-1}$)	15
Chlordecone pretreated	
VmaxC (mg/h/kg)	3.92
Km (mg/L)	0.5
Kfc ($h^{-1}. kg^{-1}$)	15.5
Phenobarbital pretreated	
VmaxC (mg/h/kg)	8.52
Km (mg/L)	0.5
Kfc ($h^{-1}. kg^{-1}$)	12.9
Mirex pretreated	
VmaxC (mg/h/kg)	5.06
Km (mg/L)	0.5
Kfc ($h^{-1}. kg^{-1}$)	17.6

Trichloroethane (1,1,2-)	
Species	Rat
Reference	**50**
Partition coefficients	
Blood/air	58
Liver/blood	1.26
Slowly perfused/blood	0.39
Fat/blood	24.8
Biochemical parameters	
VmaxC (mg/h/kg)	7.69
Km (mg/L)	0.75

Trichloroethane (1,1,1-)						
Species	Mouse	Rat	Rat	Rat	Human	Human
Reference	**116**	**116**	**28**	**51**	**116**	**83**
Partition coefficients						
Blood/air	10.8	5.76	8.6	5.76	2.53	4.35
Lung/blood			1.49			1.08
Liver/blood	0.80	1.49	1.49	1.49	3.40	3.68
GI Tract/blood						3.68
Fat/blood	24.35	45.66	47.7	45.66	103.95	57.70
Rapidly perfused /blood	0.80	1.49	1.49		3.40	1.91
Poorly perfused/Blood	0.29	0.55		0.55	1.25	1.54
Muscle + skin /blood			0.55			1.54
Biochemical parameters						
VmaxC (mg/h/kg)	0.419	0.419			0.419	0.42
Km (mg/L)	5.75	5.75			5.75	5.75
Kf Metabolic rate constant (min-1)			0.115	0.083		
Lu:alveolar mass transfer coeff. (ml/min)			500			
Ka Oral absorption in water vehicle (h^{-1})					1.25	
Metabolites						
Excretion rate of trichloroethanol (urine) (h^{-1})						0.0066
Excretion rate of TCA (urine) (h^{-1})						0.0082
Excretion rate of trichloroethanol (other pathways) (h^{-1})						0.0102
Excretion rate of TCA (other pathways) (h^{-1})						0.0055
Conversion rate of trichloroethanol to TCA (h^{-1})						0.0362

Trichloroethylene						
Species		Mouse Male	Mouse Female	Mouse	Mouse	Mouse
Reference		**43**	**43**	**1**	**56**	**17**
Partition coefficients						
	Blood/air	13.4	14.3	15.91	15.91	14
	Lung/blood			2.61	2.61	
	Liver/blood	2.03	1.62	1.73	1.73	1.8
	GI Tract/blood					
	Fat/blood	41.3	31.3	36.38	36.38	36
	Kidney/blood			2.07	2.07	
	Rapidly perfused/blood	2.03	1.62	1.73	1.73	1.8
	Slowly perfused/blood	1	0.48		2.36	0.75
	Muscle+skin/blood			2.36	2.36	
	Gut/blood					1.8
	Tracheobronchial/blood					1.8
Biochemical parameters						
	VmaxC (mg/h/kg)	32.7	23.2	32.7	32.7	39.0
	Km (mg/L)	0.25	0.25	4.61	0.25	0.25
	Kf (h^{-1})					
	Ka Oral absorption in water vehicle (h^{-1})					

Trichloroethylene										
Species	Rat Female	Rat	Rat Lacting Dam	Rat	Rat	Rat Male	Rat Female	Rat	Rat Male	Rat
Reference	**41**	**79**	**42**	**51**	**29**	**43**	**43**	**10**	**123**	**17**
Partition coefficients										
Blood/air	15	25.8	13.1	21.9	21.9	21.9	15.0	20.5	21.9	18.5
Lung/blood										
Liver/blood	1.46	2.43	1.67	1.24	1.24	1.2	1.46	1.3	1.2	1.3
GI Tract/blood									1	
Fat/blood	29.83	23.8	34.2	25.30	25.3	25.3	29.82	26	25.3	27.5
Kidney/blood								1		
Rapidly perfused/blood	1.46	2.43	1.67	1.24	1.24	1.2	1.46		1.2	1.3
Slowly perfused/blood	0.46	0.84	0.53		0.46	0.46	0.46		0.46	0.5
Muscle+skin/blood				0.46				0.6		
Gut/blood										1.3
Tracheobronchial/blood										1.3
Biochemical parameters										
VmaxC (mg/h/kg)	10.98	10	9.26	11.0	10.0	11.0	11.0	11.4	11.0	12.0
Km (mg/L)	0.25	2.5	0.25	0.25	0.25	0.25	0.25	0.09	0.25	0.25
Kf (h^{-1})	7.08						6.96			
Ka Oral absorption in water vehicle (h^{-1})	5.4									

Trichloroethylene						
Species	Human	Human	Human	Human Male	Human Female	Human
Reference	**43**	**80**	**84**	**44**	**44**	**18**
Partition coefficients						
Blood/air	9	9.77	9.1	11.15	9.13	9.2
Lung/blood			1.54	0.42	0.39	
Liver/blood	2.2	6.42	3.19	5.92	4.85	6.8
GI Tract/blood			3.19			
Fat/blood	66.7	62.85	72.42	63.88	52.34	73
Kidney/blood				1.32	1.08	
Rapidly perfused/blood	2.2	6.42	2.31			6.8
Slowly perfused/blood	2.1	2.21	2.09			2.3
Muscle+skin/blood			2.09	1.68	1.38	
Gut/blood						6.8
Tracheobronchial/blood						6.8
Biochemical parameters						
VmaxC (mg/h/kg)	*	10	11	4.0	5.0	10
Km (mg/L)		2.5	0.25	1.66	1.8	1.5
Kf (h^{-1})						
Ka Oral absorption in water vehicle (h^{-1})						

Trichloroethylene (Metabolites)						
Données partielles à compléter avec les sous-compartiments						
Species		Mouse Male	Mouse Female	Mouse	Mouse	Mouse
Reference		**43**	**43**	**2**	**56**	**17**
	Fraction of CH transformed to trichloroethanol					
	Fraction of CH transformed to TCA *(PO)*	0.06 - 0.13	0.07 - 0.23			0.035
	Conversion rate of trichloroethanol to TCA (h^{-1})					
	Excretion rate of trichloroethanol (urine) (h^{-1})					
	Excretion rate of TCA (urine) (h^{-1})					
	Excretion rate of trichloroethanol (other pathways) (h^{-1})					
	Excretion rate of TCA (other pathways) (h^{-1})					
	Excretion rate of trichloroethanol (urine) (mg/h/kg)					
	Excretion rate of trichloroethanol (urine) (mg/L)					

Trichloroethylene (Metabolites)

Données partielles à compléter avec les sous-compartiments

Species	Rat	Rat	Rat Lacting Dam		Rat	Rat	Rat	Rat	Rat	Human
	Female				Male	Female		Male		
Reference	**41**	**79**	**42**		**29**	**43**	**43**	**10**	**123**	**18**	**39**
Fraction of CH transformed to trichloroethanol			0.83 0.73	or					0.83		0.78
Fraction of CH transformed to TCA *(PO)*			0.17 0.27	or		0.06	0.18		0.15	0.02	0.22
Conversion rate of trichloroethanol to TCA (h^{-1})											0.019
Excretion rate of trichloroethanol (urine) (h^{-1})											0.026
Excretion rate of TCA (urine) (h^{-1})											0.007
Excretion rate of trichloroethanol (other pathways) (h^{-1})											0.008
Excretion rate of TCA (other pathways) (h^{-1})											0.007
Excretion rate of trichloroethanol (urine) (mg/h/kg)											
Excretion rate of trichloroethanol (urine) (mg/L)											

Trichloropropane (1,2,3-)	
Species	Rat
Reference	**141**
Partition coefficients	
Liver/blood	3.8
Muscle/blood	2
Fat/blood	15
Muscle/blood	0.6
Skin/blood	1.3
Biochemical parameters	
Metabolism constant (ml/min)	20

CHLOROFLUOROHYDROCARBONS	
1,1,2-Trichloro-1,2,2-trifluoroethane	
Species	Human
Reference	**9**
Partition coefficients	
Blood/air	0.41
Liver/blood	2.07
Rapidly perfused/blood	2.07
Slowly perfused/blood	9.2
Fat/blood	146
Biochemical parameters	
Total metabolic clearance (Cl/Qc)	0.46

Trifluoroethane (1,1,1-)	
Species	Rat
Reference	**95**
Partition coefficients	
Blood/air	0.91
Liver/blood	1.43
Fat/blood	13.9
Rapidly perfused /blood	1.43
Lean tissue/blood	0.50
Biochemical parameters	
Kf First order metabolism rate constant (h^{-1} . kg^{-1})	1.17

Trifluoroidiomethane	
Species	Human
Reference	**139**
Partition coefficients	
Blood/air	0.97
Liver/blood	1.26
Rapidly perfused/blood	1.26
Poorly perfused/blood	1.31
Fat/blood	11.59
Gut/blood	1.62
Biochemical parameters	
VmaxC (mg/h/kg)	0.38
Km (mg/L)	0.1

Trihaloethane (1,1,1-)	
Species	Rat
Reference	**95**
Partition coefficients	
Blood/air	5.55
Liver/blood	1.42
Fat/blood	40.54
Rapidly perfused /blood	1.42
Lean tissue/blood	0.50
Biochemical parameters	
Kf First order metabolism rate constant (h^{-1} . kg^{-1})	3.78

Trimethylbenzene (1,2,4-)	
Species	Human
Reference	**64**
Partition coefficients	
Blood/air	59
Liver/blood	5
Fat/blood	125
Rapidly perfused /blood	5
Slowly perfused/blood	5
Biochemical parameters	
Pathway1	
Vmax (µmol/min)	24
Km (µM)	13
Pathway2 (3,4-DMHA)	
Clearance rate (L/min)	0.6
ke Excretion rate (min^{-1})	0.016

2,4,4-Trimethyl-2-pentanol	
Species	Rat
Reference	**11**
Partition coefficients	
Blood/air	214
Liver/blood	2.5
Fat/blood	10.3
Rapidly perfused /blood	4,8
Slowly perfused/blood	1.1
Biochemical parameters	
Vmax oxidation (µmol/h/kg)	330
Km (µM)	23
Diffusional clearance in fat (L/h)	0.34* QF
Kd Diss. constant of binding to alpha2u (µM)	0.2

Vinyl chloride			
Species		Rat	Rat
Reference		**51**	**10**
Partition coefficients			
	Blood/air	1.68	2.4
	Liver/blood	0.95	0.7
	Fat/blood	11.90	10
	Muscle/blood	1.25	0.4
	Kidney/blood		0.7
	Rapidly perfused/blood	0.95	
Biochemical parameters			
	VmaxC (mg/h/kg)	2.8	3.0
	Km (mg/L)	0.1	0.01
	Kfc ($h^{-1}.kg^{-1}$)	1.0	

Vinyl fluoride		
Species	Mouse	Rat
Reference	**15**	**15**
Partition coefficients		
Blood/air	0.75	0.75
Liver/blood	1.11	1.11
Rapidly perfused/blood	1.11	1.11
Poorly perfused/blood	0.72	0.72
Fat/blood	2.43	2.43
Biochemical paremeters		
VmaxC (mg/h/kg)	0.3	0.1
Km (mg/L)	< 0.02	< 0.02

Vinylidene Fluoride (1,1-difluororethylene)	
Species	Rat
Reference	**102**
Partition coefficients	
Blood/air	0.18
Liver/blood	4.4
Rapidly perfused/blood	4.4
Poorly perfused/blood	1.6
Fat/blood	5.6
Biochemical parameters	
VmaxC (mg/h/kg)	0.07
Km (mg/L)	0.13

Zinc			
Species		Rat	
Reference		**62**	**62**
Parameters		Linear binding constants	Diffusion constants (h^{-1})
	Skin and fur/plasma	6.50	0.0339
	Muscle/plasma	11.04	0.0171
	Liver/plasma	28.00	0.4076
	Intestine/plasma	14.75	0.3132
	Stomach/plasma	18.00	0.1181
	Fat/plasma	0.70	0.0037
	Thyroid/plasma	11.35	0.1815
	Bone and marrow/plasma	25.00	0.0799
	Heart/plasma	13.00	0.1216
	Bladder/plasma	17.00	0.0739
	Prostate/plasma	6.00	0.0633
	Spleen/plasma	15.00	0.2083
	Pancreas/plasma	20.00	0.1884
	Kidneys/plasma	20.00	0.3278
	Brain/plasma	11.43	0.0191
	Gonads/plasma	15.00	0.0500
	Sex organs/plasma	8.00	0.0399
	Gut lumen/plasma	16.08	0.1274
	Red blood cells/plasma	5.53	

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