Product		Cryscal/Radiation material		fiducial volume		position resolution			Slice pitch	energy res.	sensitivity		NECR by NEMA NU 2-2001			Solid angle	Area	Rate	note
designer	name		size	inner diameter	field of view	tangen-tially	radially DOI	axial (z)	z	511 keV	NEMA NU2-2001		NECR	at radiation dose (20Φ x70(20)L	scatter fraction	point source		15MHz in total	
PET/CT			x, z, y in mm	cm	cm	mm	mm	mm	mm	%	cps/kBq	%	kcps	kBq/ml	%		cm^2	Hz/cm^2	
GE	ADVANCE	BGO	4, 8.1, 30	67.2	15.2	7	30	7.3, 8.4		33		0	37.6	10	44.8	0.221	3207.3	4676.8	This resulted in deadtime values of 625 and 332 ns at the Block and Coincidence levels, respectively
GE	Discovery ST Elite	BGO	6, 6, 30	55	15.2	4.25	30	4.8	3.27		8.5	0.85	80	12	36	0.266	2625.0	5714.2	13-15億円
Siemens	ECAT EXACT HR+	BGO	4.39, 4.05, 30	65.3	15.5	4.3	30	4.1			8.98	0.898	27.3(79.2	6.3(12.5)	37	0.231	3178.2	4719.7	
Siemens	biograph 16 HI-REZ	LSO	4, 4, 20	58.5	16.2	3.5	20	3.12	2	10	4.92	0.492	84.77	28.73	34.1	0.267	2975.8	5040.7	
Philips	Gemini GXL (-TF)	GSO(+Zr)	4, 6, 20 (30)	56	18	4.9-5.5	20	5.0-6.1	4	8.5	8	0.8	70	11	35	0.306	3165.1	4739.2	12億円
Shimazu	SET-3000GCT	GSO	2.45, 5.1, 30	66.4	25	2.45	30	5.1	2.6		19	1.9	60	9.8	50	0.352	5212.4	2877.8	6億2000万円ー
Toshiba	Aquiduo PCA-7000B	LSO	4, 4, 20	58.5	16.2	3.5	20	3.12	2	10	4.92	0.492	84.77	28.73	34.1	0.267	2975.8	5040.7	17億2200万円～
PET																			
Hamamatsu	SHR-92000	BGO	2.9, 6.3, 20	60	68.5						9.72	0.972	113.6	10.5	31.4	0.752	12905.4	1162.3	
Nantes univ.	LXeTPC PET	Liq.Xe	10, 10, 90 (93%)	60	60	0.25	0.14	0.25		13.8			70	1.5	54.5	0.707	11304.0	1327.0	TPC. 9cm drift, 0.5x0.5mm^3 anode pads
Coimbra univ.	PETYA	Liq.Xe	10, 50, 60 (73%)			0.8	2.0-5.0	0.8		15-17									ionization chamber with 2.5mm spacing wires, deadtime=50um cm^2
NIRS	LXeTOF PET	Liq.Xe	segmentation?	80	24	3.7		3.7		16	35	3.5	150	10		0.287	6028.8	2488.1	Prototype : pos. 3.5mm, tof 312ps, energy 20.5%, TOF for improving image quality by 3 times
KEK-NIRS	**TXePET**	**Liq.Xe**	**no segmentation**	**88**	**48**	**1.64**	**1.64**	**1.2**		**16**	**70**	**7**	**300**	**10**		**0.479**	13263.4	1130.9	**Sensitivity and NECR are scaled ones of Nishikido's LXeTOF PET.**
Brain PET													20Φ x20L cm^2						
CERN	brain HPD-PET	LSO	3.2, 200(z), 3.2	35	10	1.9	1.9	4.5		7.5	4	0.4	130		30.4*	0.275	1099.0	13648.8	HPD=Hybrid PhotoDetector
NIRS	jPET-D4	GSO	2.9, 2.9, 7.5x4	25.6	26	2.5	7.5	2.5		16	7.1	0.71	154	11	39.7	0.713	2090.0	7177.1	Sensitivity is scaled by 1/10 of point source.
CPS	HRRT	LSO-LYSO	2.1, 2.1, 7.6x2	31.2	25	2.4-2.9	7.6	3.0-4.0		17	4.5	0.45	140	13	40	0.625	2449.2	6124.4	
Univ. Pennsylvania	G-PET	Anger-logic GSO	4, 4, 10	30	25.6	4	10	5		18	4.79	0.479	60	7.4	39	0.649	2411.5	6220.1	
Hamamatsu	SHR-1200(2400)	BGO	2.8(1.4), 6.55, 30	33	16.3	2.9	30	2.9								0.443	1689.0	8881.0	
Hamamatsu	SHR-12000	BGO	2.8, 6.55, 30	50.8	16.3	2.9	30	2.9								0.306	2600.0	5769.1	
Small Animal PET														(2.5Φ x7L cm^2),MBq/			http://www2.hama-med.ac.jp/w3a/photon/photon4/animalPET.html		
UVP BioImaging	microPET II	LSO	0.975,0.975,12.5	16	4.9	1.17	12.5	1.42			22.6	2.26	235	2.35		0.293	246.2	60932.0	
SCETI, Univ. of Ferrara	YAP-PET	YAP	2, 2, 30	4	4	1.8	30	1.8		14.5	18	1.8	90	16.6MBq		0.707	50.2	298566.9	
Oxford Positron	Quad HIDAC	HIDAC		17	28	1	1	1			18	1.8	100	0.2	30-40	0.855	1494.6	10035.9	
raytest	ClearPET	LYSO-LuYAP	2, 2, 10x2	22.5	11	1.25-2	10	1.25-2		30	38	3.8				0.439	777.2	19301.3	
LIP	RPC-PET	RPC		6	10	0.5		0.5			21	2.1	318	2.63		0.857	188.4	79617.8	
Philips	MOSAIC	GSO		12.8	11.9	2.1-2.5					5.7	0.57				0.681	478.3	31362.1	18cm bore
GE	eXplore Vista	GSO/LYSO	1.55, 1.55,	6.7	4.7	1.56		1.74			41.4	4.14				0.574	98.9	151701.2	8cm bore, 185kcps at 15uCi/cc, mouse phantom
Siemens	FOCUS 220	LSO	1.5, 1.5, 10	19	7.6	1.3-2.5	10			18	40	4				0.371	453.4	33082.2	22cm bore CTI-Concorde Microsystems's microPET FOCUS, http://www.crump.ucla.edu/user-files/resprojects/microPET/
Advanced MI	LabPET7.2	LYSO/HPD	1, 1, 10	11	7.2	1.1	10									0.548	248.7	60316.5	15.6cm bore, highly integrated, fully digital, parallel data acquisition (DAQ) channels and distributed, FPGA-based, real time processing to acquire PET images. LYSO/LGSO 2x2x10x2
Gamma Medica	X-PET	BGO		10	11.6	2		2			83	8.3				0.757	364.2	41181.6	16.5cm bore
Joseph Fourier univ.		Liq.Xe	2, 2, 50(z)	8	5	1	1	8								0.53	125.6	119426.8	PMT R8520-06-C12, 2cm x 2cm x 5cm
UBC (D.Bryman	μ-XEPET	Liq.Xe				0.8	0.8	0.8			200	20							US Patent 6770884
Joseph Fourier univ.		Liq.Xe	50(z) DOI	30	20	2.1					18	1.8				0.555	1884.0	7961.8	PMT R5900-0-C12, 1.6mm from acolinearity with σ=0.5degree
Hitachi co./Hokkaido univ.		CdTe	x,x,15 x3	8		2	15			5.2									
Tohoku univ.		CdTe	1,1.1,5 x 2	6.4	2.6	0.75	5												