

SCRF Accelerators / Europe [29=5+11+4+9]										
Name	Particles	# cavities		Type	Material	Gradient	Mode	T	Status	Location
HERA	electrons, positrons	16	500 MHz	$\beta=1$ elliptical 4-cell	Nb	4.0 MV/m	CW	4.2 K	de-commissioned	DESY
LEP200	electrons, positrons	16 272	352 MHz	$\beta=1$ elliptical 4-cell	Nb Nb/Cu	5 MV/m 7 MV/m	CW	4.5 K	de-commissioned	CERN
LISA	electrons	4	500 MHz	$\beta=1$ elliptical 4-cell	Nb	6 MV/m	pulsed	4.2 K	de-commissioned	LN Frascati
MACSE	electrons	5	1.5 GHz	$\beta=1$ elliptical 5-cell	Nb	10 MV/m	CW	1.8 K	de-commissioned	CEA-Saclay
Tandem PA	ions	16 34	81 MHz 135 MHz	$\beta=0.085$ helix $\lambda/2$ $\beta=0.085$ helix λ	Nb	2.2 MV/m	CW	4.2 K	de-commissioned	CEA-Saclay
ALICE	electrons	2 2	1.3 GHz	$\beta=1$ elliptical 9-cell $\beta=1$ elliptical 9-cell	Nb	3-5 MV/m 13.5 MV/m	pulsed	2 K	operation	Daresbury
ALPI	ions	2 12 50 58	80 MHz 80 MHz 160 MHz 160 MHz	$\beta=0.0255$ RFQ $\beta=0.055$ QW $\beta=0.13$ QW $\beta=0.13$ QW	Nb Nb Pb/Cu Nb/Cu	2-3 MV/m 4 MV/m 2.7 MV/m 4.8 MV/m	CW	4.5 K	operation de-commissioned	LN Legnaro
DIAMOND	electrons	2	500 MHz	$\beta=1$ elliptical 1-cell	Nb	6.5 MV/m	CW	4.5 K	operation	Oxford
ELBE	electrons	1 4	1.3 GHz	$\beta=1$ elliptical 3½-cell $\beta=1$ elliptical 9-cell	Nb	8 MV/m 9 MV/m	CW	2 K	operation	HZDR
ELETTRA	electrons	1	1.5 GHz	$\beta=1$ elliptical 2-cell	Nb	5 MV/m	CW	4.5 K	operation	Trieste
FLASH	electrons	56 4	1.3 GHz 3.9 GHz	$\beta=1$ elliptical 9-cell	Nb	20-30 MV/m 14.5 MV/m	pulsed	2 K	operation	DESY
ISOLDE	ions	12 20	101 MHz	$\beta=0.063$ QW $\beta=0.103$ QW	Nb/Cu	6 MV/m	CW	4.5 K	operation	CERN
LHC	protons, ions	16	400 MHz	$\beta=1$ elliptical 1-cell	Nb/Cu	6 MV/m	CW	4.5 K	operation	CERN
S-DALINAC	electrons	1 1 10	3 GHz	$\beta=0.85$ elliptical 2-cell $\beta=1$ elliptical 5-cell $\beta=1$ elliptical 20-cell	Nb	5 MV/m 5 MV/m 5 MV/m	CW	2 K	operation	Darmstadt
SLS	electrons	1	1.5 GHz	$\beta=1$ elliptical 2-cell	Nb	5 MV/m	CW	4.5 K	operation	PSI
SOLEIL	electrons	4	352 MHz	$\beta=1$ elliptical 1-cell	Nb/Cu	6 MV/m	CW	4.2 K	operation	SOLEIL
BERL inPro	electrons	1 3 3	1.3 GHz	$\beta=1$ elliptical 1½-cell $\beta=1$ elliptical 2-cell $\beta=1$ elliptical 7-cell	Nb	20 MV/m 18 MV/m	CW	2 K	construction	HZB
E-XFEL	electrons	808 8	1.3 GHz 3.9 GHz	$\beta=1$ elliptical 9-cell	Nb	24 MV/m 15 MV/m	pulsed	2 K	construction	Hamburg
IFMIF-EVEDA	D+	8	175 MHz	$\beta=0.094$ HW	Nb	4.5 MV/m	CW	4.5 K	construction	Rokkasho
SPIRAL2	D+, ions A/Q = 3	12 14	88 MHz	$\beta=0.07$ QW $\beta=0.12$ QW	Nb	6.5 MV/m 6.5 MV/m	CW	4.2 K	construction	GANIL
ESS	protons	28 64 112	352 MHz 704 MHz 704 MHz	$\beta=0.5$ double spoke $\beta=0.7$ elliptical 5-cell $\beta=0.9$ elliptical 5-cell	Nb	8 MV/m 15.5 MV/m 18.2 MV/m	pulsed	4.5 K	design	Lund
EURISOL Driver	protons, deutons, H-, 3He2+	16 56 36 45 40 24	176 MHz 176 MHz 352 MHz 704 MHz 704 MHz 704 MHz	$\beta=0.09$ HW $\beta=0.15$ HW $\beta=0.3$ triple spoke $\beta=0.47$ elliptical 5-cell $\beta=0.65$ elliptical 5-cell $\beta=0.76$ elliptical 5-cell	Nb	4.7 MV/m 5.2 MV/m 5.8 MV/m 12 MV/m 15 MV/m 18 MV/m	CW	2 K	design	-
EURISOL PA	ions, A/Q from 2 to 8	15 27 80 154	88 MHz 88 MHz 176 MHz 264 MHz	$\beta=0.065$ QWR $\beta=0.14$ QWR $\beta=0.27$ HWR $\beta=0.39$ single-spoke	Nb	?	CW	4 K	design	-
ILC 500	electrons, positrons	16,900	1.3 GHz	$\beta=1$ elliptical 9-cell	Nb	35 MV/m	pulsed	2 K	design	-
LUNEX5	electrons	16	1.3 GHz	$\beta=1$ elliptical 9-cell	Nb	25 MV/m	pulsed	2 K	design	SOLEIL
LHeC ERL	electrons	944	721 MHz	$\beta=1$ elliptical 5-cell	Nb	20 MV/m	CW	2 K	design	CERN
MYRRHA	protons	8 48 34 60	176MHz 352 MHz 704 MHz 704 MHz	CH DTL $\beta=0.35$ single spoke $\beta=0.47$ elliptical 5-cell $\beta=0.65$ elliptical 5-cell	Nb	4 MV/m 6 MV/m 8 MV/m 11 MV/m	CW	2 K	design	SCK Mol
POLFEL	electrons	?	1.3 GHz	$\beta=1$ elliptical 9-cell	Nb	25 MV/m	pulsed	1.8 K	design	-
SPL	protons, H-	60 192	704 MHz	$\beta=0.65$ elliptical 5-cell $\beta=1$ elliptical 5-cell	Nb	19 MV/m 25 MV/m	pulsed	?	design	CERN
TRASCO	protons		704 MHz		Nb		pulsed		design	-