



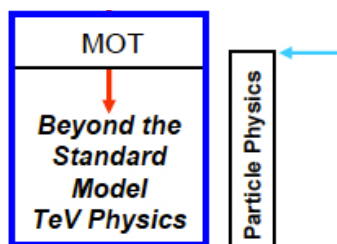
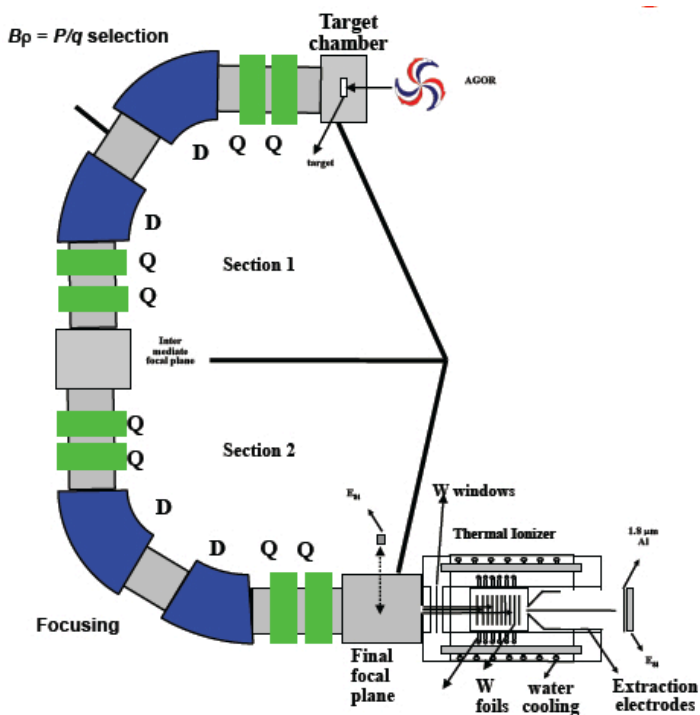
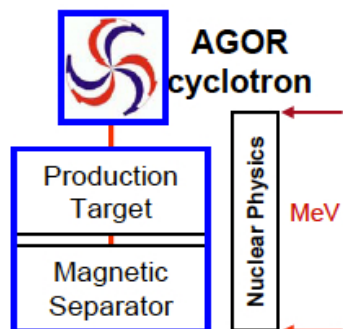
Report from KVI – PAC issues

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Research at KVI

- The research at KVI focuses mainly on
 - 1) fundamental forces and symmetries in physics
 - 2) applications of the technology and methods developed for fundamental research (in particular biology and medical applications)



Types of submitted proposals (2011-2012)

- Experiments to study fundamental interactions and symmetries at low q^2 (TRIμP facility), 4 proposals:
 - trapping and cooling of ions, atoms, and molecules. In particular search for violation of parity and time reversal symmetry and for violation of Lorentz invariance.
 - high quality of proposals
 - complementary to particle physics research (high q^2) to search for new physics beyond the Standard Model

Types of submitted proposals (2011-2012)

- Experiments in nuclear (astro)physics, 2 + 1 proposals
 - high quality of proposals, use of existing facilities (e.g. BBS spectrometer), collaborations with strong European groups.
- Experiments to study biomedical physics, in particular in the field of particle therapy, 4 + 1 proposals
 - strong collaboration with the University (Clinics)
 - high quality of the medical physics proposals, which include very innovative approaches and collaborations with strong European groups.
 - specific commitment of the KVI Directorate to invest in biomedical applications, a decision that the PAC fully endorse and encourage.



Criteria for approval

- Excellence is the sole criterion for approval
- After the submission, two referees are assigned to every proposal. Each proposed experiment has to be presented at the PAC meeting. Approval of experiments, ranking and assignment of the number of shifts are made by consensus without voting.

Present PAC composition

- Juha Äystö (JYFL Jyväskylä)
- Roberto Calabrese (Ferrara Univ. and INFN) - Chair
- Marco Durante (GSI Darmstadt)
- Oscar Naviliat-Cuncic (MSU)

Overview of the used beam time

Assigned shifts by the PAC						Update till Sep 17, 2012		Realized shifts					ENSAR
PAC Nr.	PAC 2008	PAC 2010	PAC 2011	PAC 2012	avail	spokesp	Topic	Realiz 2010	Realiz 2011	Realiz 2012	remain 17-Sep	planned 2012	
Not yet started experiments													
P11		27			27	L. Willmann	Searches for permanent electric dipole moment				27		
P14		43			43	A. Young	Lifetimes for 21Na and 37K				43		
P16			18		18	O. Versolato	Radiofrequency measurement of 6^2D3/2 state				18		
P17			33		33	H. Wilschut	Beta decay parameters of 39Ca				33		
P18a			10		10	T. Hayamizu	Francium production				10		
P18b			6		6	T. Hayamizu	Francium production				6		
N15					0	H.Wilschut	15N->16N (6 shifts)						
Ongoing experiments													
P05		54			54	H. Wilschut	Beta decay	12	13.5		28.5		
P06		27			27	L. Willmann	Production methods of Ra Isotopes for EDM	6		21	0		
P13		54			54	O. Versolato	Atomic parity violation	47			7		
P15			48		48	M. Portela	Radium Atomic Parity Violation		11		37		
T16	2	9	4		15	P. v Luijk	Radiation damage to parallel organized organs..	8	5	1	2	1	
T27			6		6	P.v Luijk	Clarify the mechanism of radiation-induced fibrosis		2	1	4	1	
T29		12			12	H. Lohner	Hardware radiation (APD&PbWO4)	5	5	2	0		(1),(5)
T30			35		35	F. Fiedler	Experiments for real time in-vivo dosimetry		4	4	31	1	(1),(5)
T32			30		30	S. Brandenburg	Dosimetry standard for scanned beam protontherapy			6	24	2	
T33			20		20	J. v Abbema	Precision dose delivery in proton therapy		3	2	17		
IRF					0	R. Ostendorf	Radiations	29	38	43	0	2	
Finished experiments													
P12		44		11	55	G. Onderwater	Lorentz invariantie (4)	6	26.5	26	-3.5		
F18			22		22	Kistryn	D-d breakup processes		22		0		(1)
T28		2			2	Y. Marrocchi	Helium diffusivity in olivine	2			0		
T23	2				2	C. Rigolet	EXL demonstrator	2			0		
T31			2		2	V. Bom	Real time bragg peak positioning		1	1	0		
T34				2	2	S. Lacombe	Sensitization induced by Nanoparticles in DNA			2	0		
DT			2		2	S. Brandenburg	Accelerator research		2		0		
SS8			36		36	A. Zylges	Electric dipole strenght			31	5		(1),(5)
P19/DT			6		6	G. Lotay	Study of the 26m(Al(d,p)27Al*		6		0		
AGOR					0	A. Sen	Accelerator research		22.5		0		
<div><div></div>exec</div> <div><div></div>planned</div> <div><div></div>checked</div>													

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- ENSAR (1)' ENSAR supported 31 shifts in 2011, remains 69 shifts.
 (4) 11 shifts in 2012 is requested beamtime tagged as directors time.
 ENSAR (5) ENSAR supported 37 shifts in 2012, remains 32 shifts.

292.5 shifts to be done