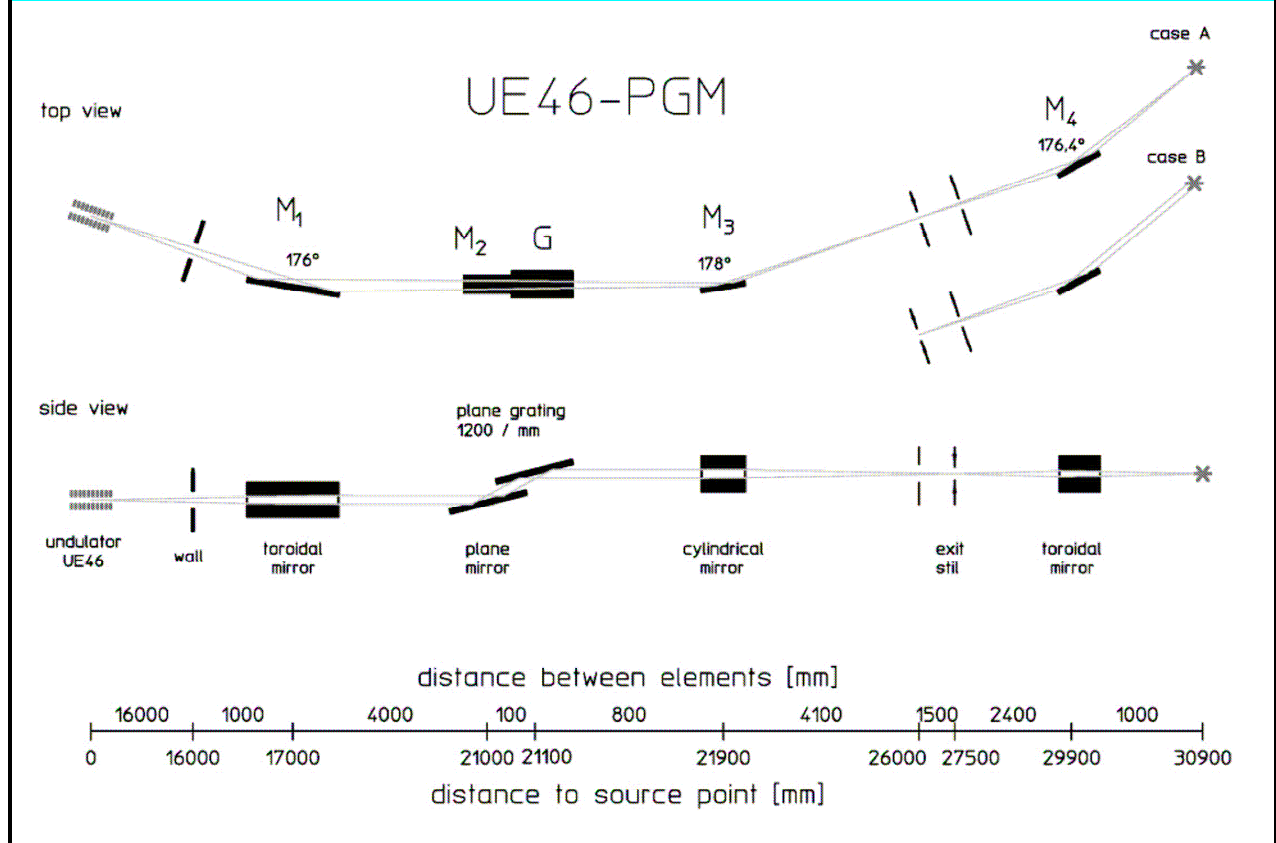


UE46-PGM1 beamline characteristics

UE46-PGM1	BL-phone: 14717
------------------	------------------------

CONTACT	building	room	phone	fax	e-mail
Eugen Weschke	14.51	6313	13409	15752	eugen.weschke@helmholtz-berlin.de
Enrico Schierle	14.51	6411	15760	15752	enrico.schierle@helmholtz-berlin.de

OPTICAL LAYOUT (schematic)

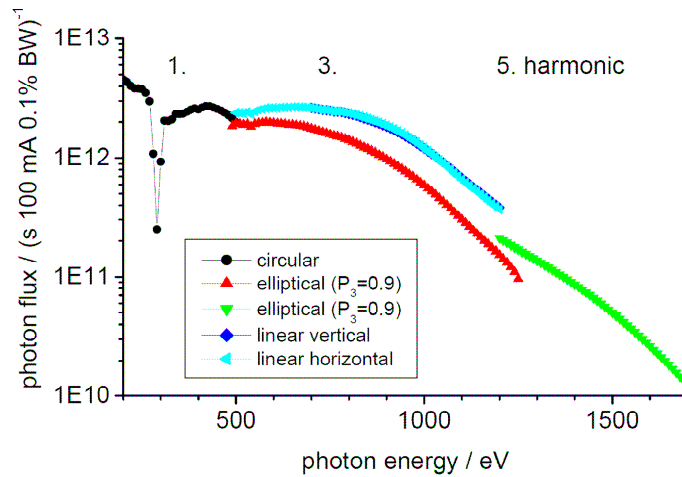


premonochromator optics	M1 : toroidal mirror, horizontal deflection, $2\Theta=176^\circ$, platinum coated, water cooled, vertical collimation, horizontal focussing															
monochromator	<p><u>principle:</u> plane grating monochromator with collimated beam</p> <p><u>optical components:</u> M2: plane mirror, vertical deflection, $2\Theta= 155-180^\circ$, platinum coated, water cooled G1,2: plane gratings, vertical deflection, $2\Theta= 155-180^\circ$, gold coated, water cooled M3: cylindrical mirror, horizontal deflection, $2\Theta=178^\circ$, platinum coated, vertical focussing on exit slit</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>grating</th> <th>d / mm⁻¹</th> <th>E / eV</th> <th>R</th> <th>coating</th> </tr> </thead> <tbody> <tr> <td>G1</td> <td>599.9</td> <td>130 - 1600</td> <td>≥ 30 km</td> <td>Au</td> </tr> <tr> <td>G2</td> <td>1200</td> <td>130 - 1600</td> <td>≥ 30 km</td> <td>Au</td> </tr> </tbody> </table>	grating	d / mm ⁻¹	E / eV	R	coating	G1	599.9	130 - 1600	≥ 30 km	Au	G2	1200	130 - 1600	≥ 30 km	Au
grating	d / mm ⁻¹	E / eV	R	coating												
G1	599.9	130 - 1600	≥ 30 km	Au												
G2	1200	130 - 1600	≥ 30 km	Au												
exit slit	slit setting: 0-2000 μ m															
postmonochromator optics	M4a, M4b: toroidal mirrors, horizontal deflection, $2\Theta= 176.4^\circ$, platinum coated, vertical (horizontal) demagnification 2.4:1 (3.9:1) of exit slit (M4a), collimated beam (M4b)															
reference	U. Englisch et al., Nuclear Instruments and Methods in Physics Research A, 467-468 , 541-544 (2001)															

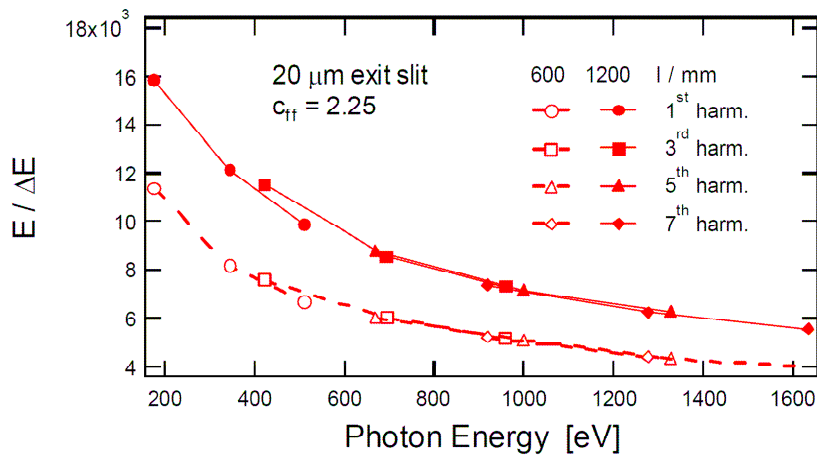
UE46-PGM1 beamline characteristics

PERFORMANCE DATA

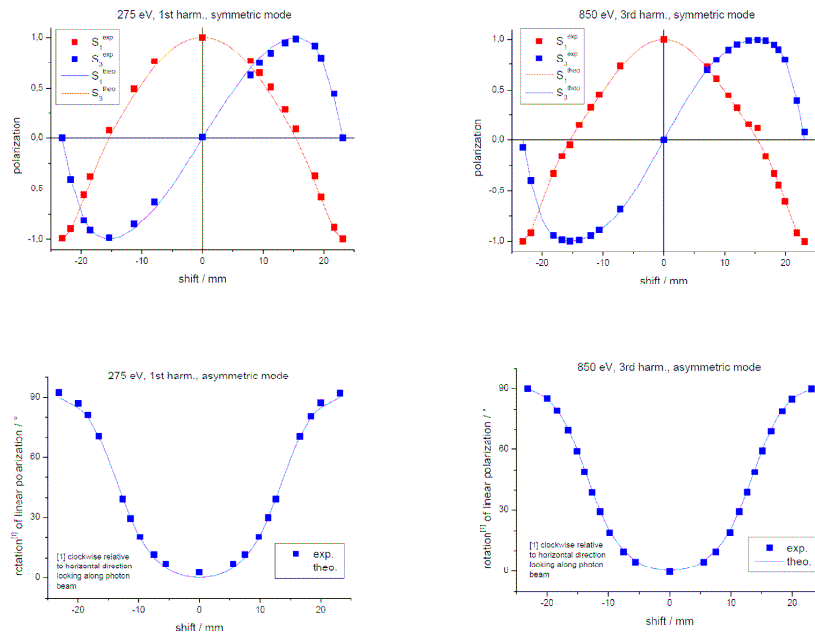
Flux (measured)



Resolution (calculated and experimentally verified):



Polarisation (calculated, measured):



spot size at experiment (measured)	focused: 64 x 16 μm ² ; collimated: 1.2 x 1.7 mm ² (hor. x vert.)
divergence at focus position (measured)	1 x 1 mrad ²
polarization	variable (elliptical, circular, linear under various angles)