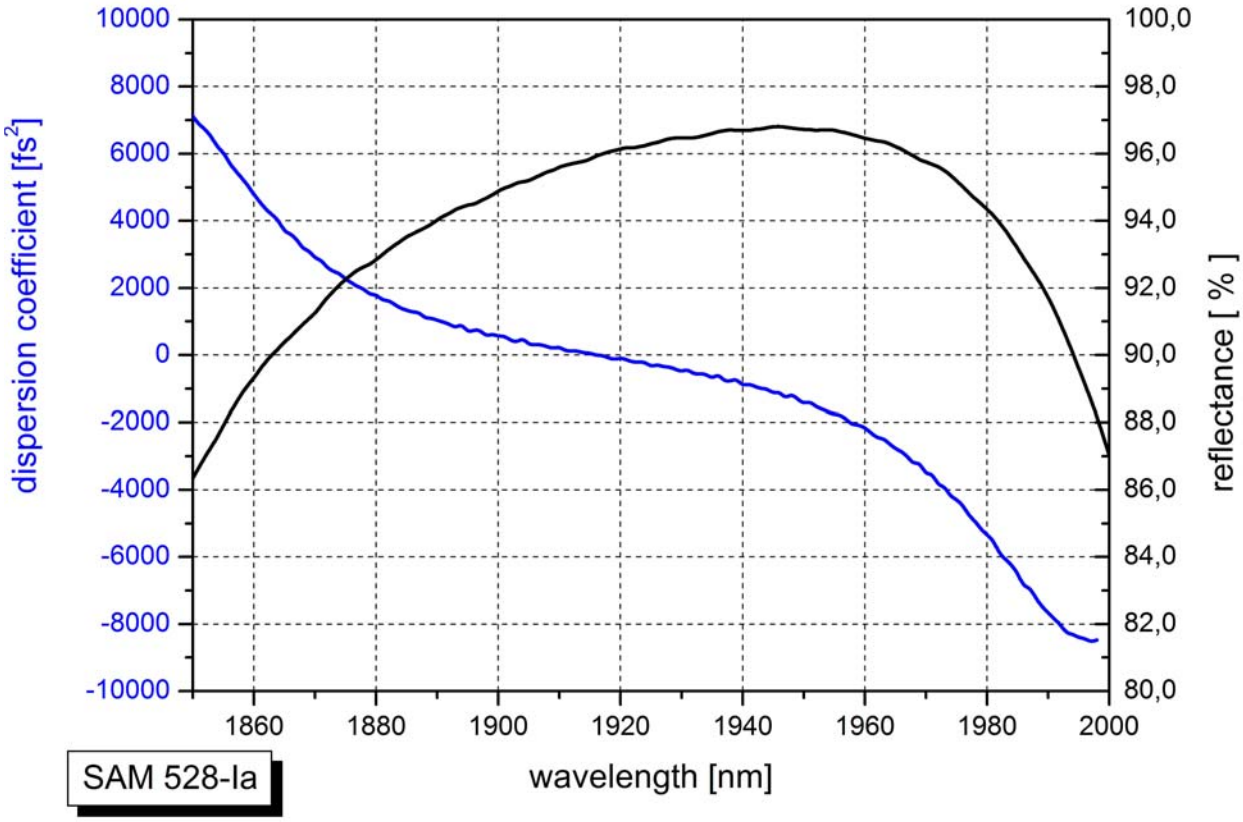
SAM™ data sheet SAM-1920-4-x-500fs, λ = 1920 nm

Laser wavelength	λ = 1920 nm
High reflection band (R > 90%)	λ = 1870 .. 1990 nm
Absorbance	A_0 = 4 %
Modulation depth	ΔR = 2.6 %
Non-saturable loss	A_{ns} = 1.4 %
Saturation fluence	Φ_{sat} = 35 µJ/cm^2
Relaxation time constant	τ ~ 500 fs
Damage threshold	600 MW/cm^2
Chip area	4mm x 4mm; other dimensions on request
Chip thickness	400 µm
Protection	the SAM is protected with a dielectric front layer
Mounting of SAM-1920-4-**x**	denotes the type of mounting as follows:
x = 0	unmounted
x = 12.7 g	glued on a gold plated Cu-cylinder with 12.7 mm ∅
x = 25.4 g	glued on a gold plated Cu-cylinder with 25.4 mm ∅
x = 12.7 s	soldered on a gold plated Cu-cylinder with 12.7 mm ∅
x = 25.4 s	soldered on a gold plated Cu-cylinder with 25.4 mm ∅
x = FC	mounted on a 1 m monomode fiber cable with FC connector

Low intensity spectral reflectance and dispersion coefficient D_2



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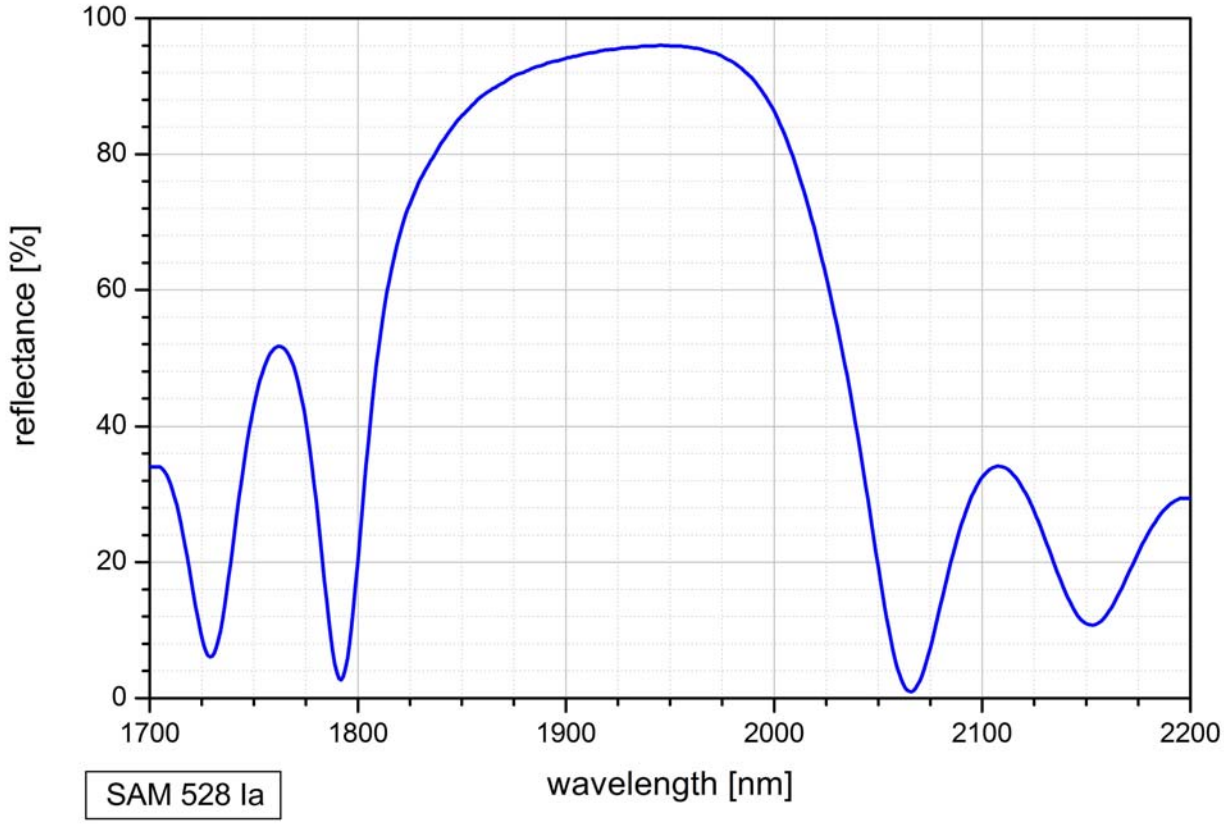

Dispersion coefficient $D_2(\omega) = \frac{\partial^2 \varphi}{\partial \omega^2}$ **with** φ **- reflected phase**

$\omega = 2\pi \frac{c}{\lambda}$ **- angular frequency**

Pump-probe measurement

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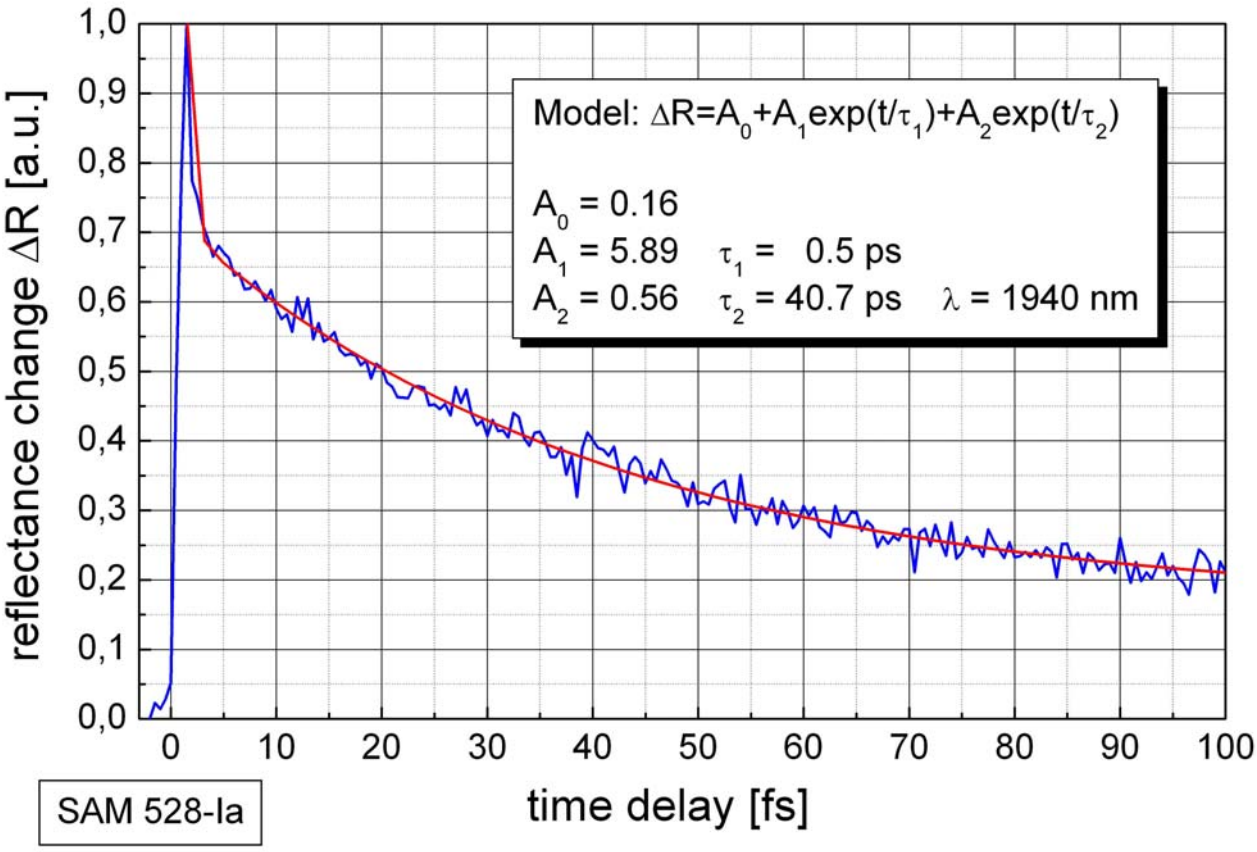
The pump-probe measurement has been done by Dr. Uwe Griebner, Max-Born-Institut Berlin, Germany. The measured data can be fitted using a twofold exponential decay function with two amplitudes A_1 and A_2 and two corresponding time constants τ_1 and τ_2.



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