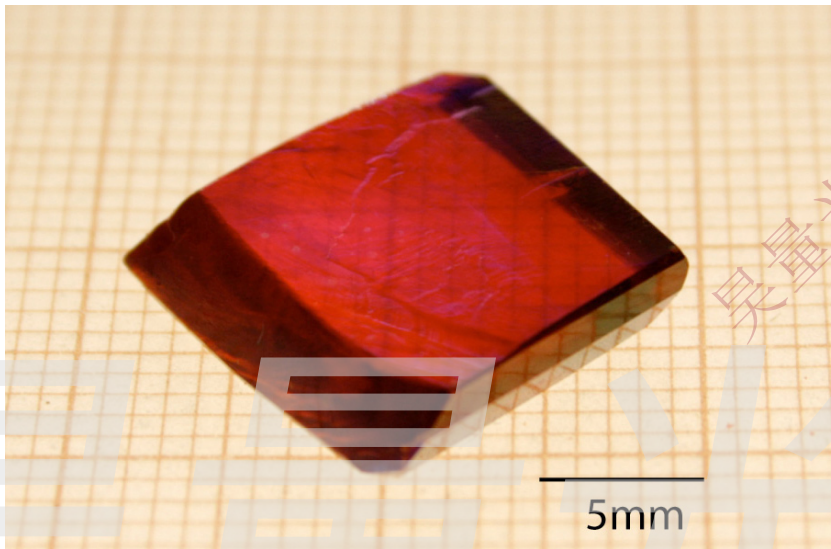


## Electro-Optic OH1 Crystals

OH1: (2-(3-(4-Hydroxystyryl)-5,5-dimethylcyclohex-2-enylidene)malononitrile)



### Properties

- high quality crystals
- cut and polished for various applications
- large nonlinear optical susceptibilities
- large electro-optic coefficients
- phase matching for THz-wave generation between 1200 nm and 1460 nm

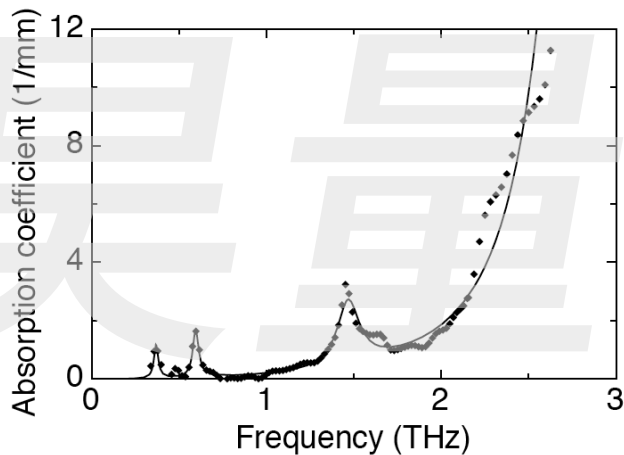
### Applications

- efficient THz generation and detection from 0.1 to >10 THz
- fast electro-optic modulation
- optical parametric generation
- efficient frequency doubling of 1.55  $\mu\text{m}$  radiation

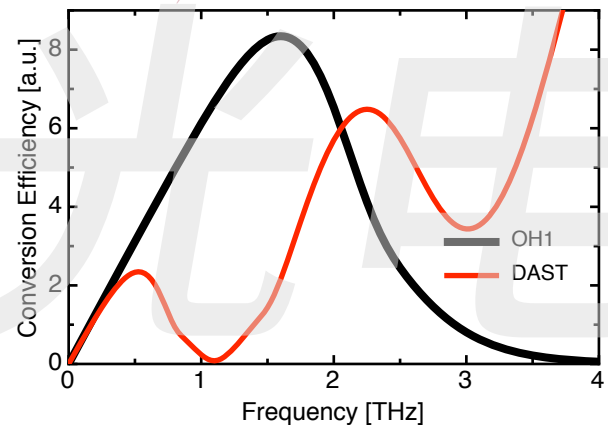
## Physical Properties

melting point	212 °C
point group symmetry	mm2
refractive indices	$n_2 = 1.58, n_3 = 2.15$
nonlinear coefficients ( $\lambda = 1.9 \mu\text{m}$ )	$d_{333} = 120 \pm 10 \text{ pm/V}$ $d_{223} = 13 \pm 2 \text{ pm/V}$ $d_{322} = 8.5 \pm 2 \text{ pm/V}$
electro optic coefficients	$r_{333} (633 \text{ nm}) = 109 \pm 4 \text{ pm/V}$ $r_{333} (785 \text{ nm}) = 75 \pm 7 \text{ pm/V}$ $r_{333} (1064 \text{ nm}) = 56 \pm 2 \text{ pm/V}$ $r_{333} (1319 \text{ nm}) = 52 \pm 7 \text{ pm/V}$

## Absorption Spectrum



## THz Conversion Efficiency



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