

## **parametric processes**

**Synonym:** optical parametric processes

Interaction of photons in a non-linear medium satisfying the energy and momentum conservation laws. During the interaction the photon frequencies are mixed and photon(s) with different frequencies are created.

Note:

Optical parametric processes of three interacting beams, called frequency mixing processes, are: second-harmonic generation (SHG), sum-frequency generation (SFG), difference-frequency generation (DFG), optical parametric generation and amplification (OPG and OPA), and optical parametric oscillation (OPO).

**Source:**

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 381