

## **Papers**

- Paper I:** C. Zaldo, M. Rico, F. Díaz, and J.J. Carvajal, *Progress in crystal growth and characterisation of rare-earth doped non-linear KTP crystals for laser applications*, Optical Materials, 13 (1999) 175-180
- Paper II:** J.J. Carvajal, R. Solé, Jna. Gavaldà, J. Massons, M. Aguiló, and F. Díaz, *Crystal growth of RbTiOPO<sub>4</sub>:Nb: a new nonlinear optical host for rare earth doping*, Crystal Growth & Design, 1 (2001) 479-484
- Paper III:** J.J. Carvajal, J.L. García-Muñoz, R. Solé, Jna. Gavaldà, J. Massons, M. Aguiló, and F. Díaz, *Selective distribution of dopants among MO<sub>6</sub> octahedra in RbTi<sub>0.927</sub>Nb<sub>0.056</sub>O<sub>0.017</sub>OPO<sub>4</sub>: a neutron diffraction study*, Journal of Solid State Chemistry, 171 (2003) 257-261
- Paper IV:** J.J. Carvajal, R. Solé, Jna. Gavaldà, J. Massons, M. Rico, C. Zaldo, M. Aguiló, and F. Díaz, *Growth and characterisation of RbTiOPO<sub>4</sub>:Nb crystals as a host for rare earth ions*, Journal of Alloys and Compounds, 323-324 (2001) 231-235
- Paper V:** J.J. Carvajal, V. Nikolov, R. Solé, Jna. Gavaldà, J. Massons, M. Rico, C. Zaldo, M. Aguiló, and F. Díaz, *Enhancement of the Erbium concentration in RbTiOPO<sub>4</sub> by codoping with Niobium*, Chemistry of Materials, 12 (2000) 3171-3180
- Paper VI:** J.J. Carvajal, V. Nikolov, R. Solé, Jna. Gavaldà, J. Massons, M. Aguiló, and F. Díaz, *Crystallization region, crystal growth, and characterization of rubidium titanyl phosphate codoped with Niobium and lanthanide ions*, Chemistry of Materials, 14 (2002) 3136-3142
- Paper VII:** J.J. Carvajal, J.L. García-Muñoz, R. Solé, Jna. Gavaldà, J. Massons, X. Solans, F. Díaz and M. Aguiló, *Charge self-compensation in the non-linear optical crystals Rb<sub>0.855</sub>Ti<sub>0.955</sub>Nb<sub>0.045</sub>OPO<sub>4</sub> and RbTi<sub>0.927</sub>Nb<sub>0.056</sub>Er<sub>0.017</sub>OPO<sub>4</sub>*, Chemistry of Materials (in press)
- Paper VIII:** J.J. Carvajal, R. Solé, Jna. Gavaldà, J. Massons, F. Díaz and M. Aguiló, *Phase transitions in RbTiOPO<sub>4</sub> doped with Niobium*, Chemistry of Materials (in press)
- Paper IX:** J.J. Carvajal, R. Solé, Jna. Gavaldà, J. Massons, M. Aguiló, and F. Díaz, *A new self-doubling material: RbTiOPO<sub>4</sub>:(Nb, Ln)*, Optical Materials (in press)
- Paper X:** J.J. Carvajal, R. Solé, Jna. Gavaldà, J. Massons, P. Segonds, B. Boulanger, A. Brenier, G. Boulon, M. Aguiló, and F. Díaz, *Yb-doped RbTiOPO<sub>4</sub> crystals for self-frequency doubling applications*, Advanced Materials (submitted)