

## Laetitia Petit

### Biophotonic glass for bone substitution

Since her PhD in 2002, Laetitia Petit has examined the role of structure/property relationships in a range of (passive and active) oxide and non-oxide glasses used in fiber and film, chemical sensing, molded optics, and applications utilizing photo-induced property modification. She has intensively worked on the direct doping technique whereby she introduces nanoparticles in glass melts while controlling the particles survival and dispersion. With this technique, she successfully developed low rare-earth concentrated phosphate glasses exhibiting green upconversion and also novel active glass-based composites including new biophotonic composites with (green and blue) upconversion and green persistent luminescence using NIR pump. Recently, she drew the first bioactive fiber with persistent luminescence.