

# New luminescent sensors for on-line and in-situ monitoring progress of photopolymerization during 3D printing of porous objects



**PHOTO HIGH** 

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## Innovative luminescent sensors

luminescent Innovative sensory systems for online monitoring the photopolymerization of photocurable resins during 3D printing have been developed based coumarin derivatives and on lanthanide complexes, including Europium (III), Terbium (III), and Samarium (III) complexes.





### **Description of** invention

solution The concerns novel luminescent for sensors photopolymerization monitoring during 3D printing of porous objects. The development of technology for monitoring and control of 3D printing process of functional porous materials will contribute to the development of medicine, chemical industry, automotive and aeronautics





#### **Advantages**

- A novel approach to 3D printing of advanced porous objects;
- **Possibility of designing** innovative 3D printers equipped with advanced on-line control and measurement systems;
- **Enabling the fabrication of** functional porous materials with complex geometric structures;
- The development of the above technology may contribute to significant progress in such sectors as medicine, chemical industry, construction, automotive & aerospace.

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