The institution	**Name**:	**Institute of Inorganic Chemistry**
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Is **interested** in the **participation in a project** that will be prepared and submitted in the following **Area** of the **Thematic Priority 6 Environment** from the Specific Work Programme Cooperation:

Specific Programme	**Cooperation**
Thematic Priority	**4 - NANOSCIENCES,NANOTECHNOLOGIES,MATERIALS (NMP)**
Activity (number & title from the Work Programme)	**4.2. Materials**
Sub-priority (number & title from the Work Programme)	**4.2.5. Using engineering to develop high performance knowledge-based materials**
Area (number & title from the Work Programme)	**4.2.5.1. Novel materials tailored for extreme conditions and environments**
Call (number & title from the Work Programme)	**FP7-NMP-2007-2.5-1**

Short description of the organization expertise relevant to the topic *(e.g. staff, areas of expertise and research)*

New property-tailored inorganic nano- and micromaterials. The proposed subject matter has been pursued at the Institute for several years by a specialised team of 8 researchers. The work was focused on the development of special additives for various engineering materials, both plastomers and elastomers. Nanofillers with special properties were obtained from mineral raw materials, such as layered aluminosilicates. Nanoscale inorganic pigments and extenders, products with specific properties, e.g. UV absorbers and pollutant absorbers, nanomaterials with specific features were also developed.

Proposed contribution to the selected Sub-Priority:

The aim of this research is to find new methods of synthesis leading to a new generation of products and materials with improved properties and new applications. Materials with tailored structure and size of molecules, both nano- and microscale, will enable preparation of materials featuring much better mechanical properties than those of traditional materials and will open new horizons for the development of innovative technologies in construction engineering and industry. The proposed research will cover nanomaterials and nanofillers, as well as other inorganic materials with properties tailored to specific applications.

Participation in relevant projects *(e.g. National Projects, FP5, FP6, INTERREG, LIFE, etc.; acronym & title)*:

The Institute did not participate in the FP5 and FP6 Programmes. The proposed subjects are associated with research that has been conducted by the Institute for many years and was financed from domestic funds.

Relevant Publications *(Authors, title, editor, year)*:

M. Stechman: Otrzymywanie nano tlenku cynku na nośniku mineralnym. Materiały Międzynarodowej Konferencji Naukowo-Technicznej „Elastomery'2005", „Nowoczesne Materiały i Technologie", Warszawa, 20-21.10.2005, s. 94

Other relevant information: