



**2<sup>nd</sup> year ENSCL**

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SUBJECT N°6

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## Synthesis of powder $ZrO_2$ stabilized with $Y_2O_3$ , $CeO_2$ or $Sc_2O_3$

1. Researching the possible ways of the synthesis of  $ZrO_2$  powder stabilized with the oxides like  $Y_2O_3$ ,  $CeO_2$  ou  $Sc_2O_3$ .
2. Analyzing the ability of the realization of the synthesis in laboratory and upgrading the scale of production.
3. Select the best technology from the following point of view:
  - a. Cost of production;
  - b. Easiness of synthesis;
  - c. Capacity of production upgrading.
4. Get familiar with the techniques of powders characterizations.