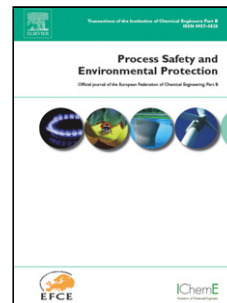


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Authors: Izabella Dascalu, Simona Somacescu, Cristian Hornoiu, Jose M. Calderon-Moreno, Nicolae Stanica, Hermine Stroescu, Mihai Anastasescu, Mariuca Gartner



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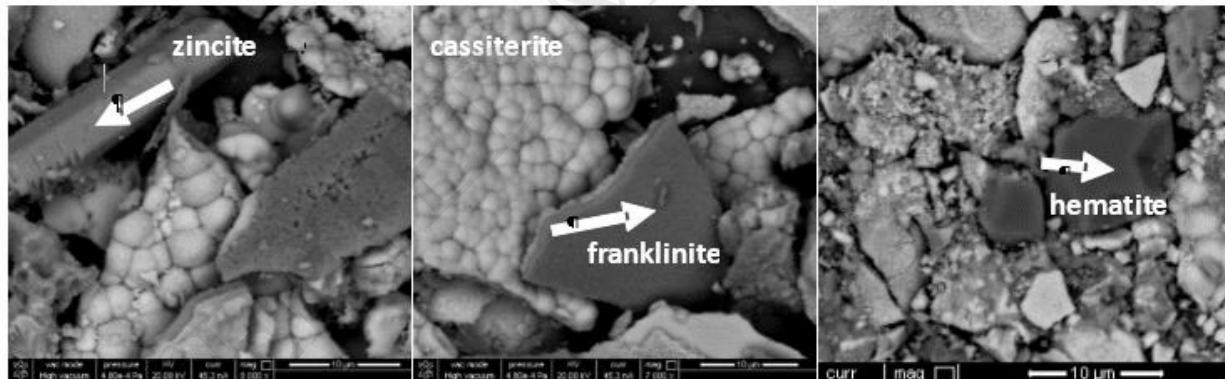
"Ilie Murgulescu" Institute of Physical Chemistry of the Romanian Academy,
Spl. Independentei 202, 060021 Bucharest, Romania

* Corresponding author.

E-mail address: hermine25@yahoo.com (H. Stroescu)

Graphical abstract

SnO₂ - 20 mol. % Zn, 30 mol. % Fe



Highlights

- Zn and Fe modified SnO₂ powders were synthesized by sol-gel method
- Two Fe concentration (10 and 30 mol. %) are investigated
- The films have a polycrystalline structure
- The origin of ferro-magnetic behavior is presented for the 30 mol. % Fe sample
- Both prepared materials are able to detect as low as 50 ppm CO

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