



## **NON-METALLIC MATERIALS IN THE OIL AND GAS INDUSTRY: OVERALL OUTLOOK AND FUTURE TRENDS**

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**Abstract:** The main goal of the lecture is to share with the audience the main applications and challenges regarding the increasing use of non-metallic materials in the Oil and Gas Industry considering nowadays scenario and the expectation for the incoming years. The widespread use of composite pipes, gratings, vessels and others, conventional and composite flexible pipes, non-metallic liners for metallic pipes, metallic pipes and structures composite repair systems, synthetic fiber mooring systems, elastomer sealing devices, non-metallic coatings for corrosion protection so on and so forth, their advantages and challenges are highlighted also considering the latest developments in nanotechnology and non-destructive techniques for non-metallic materials.