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## Sonochemical synthesis and characterization of novel 2D metal organic coordination polymer compounds

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Novel 2D coordination polymer compounds with different nitrogen and oxygen donor ligands coordinated to different metals (cadmium and lead) have been synthesized by the branched tube method (heat gradient applied to a solution of the reagents). This method allows the formation of single crystals suitable for their analysis by single crystal X-ray diffraction (SXRD). Also, the same coordination polymer compounds were synthesized following a sonochemical process involving ultrasonic irradiation, which allows the micro/nano-structuration of the studied systems. Additionally, the role of different experimental parameters (temperature, reaction time and ultrasound irradiation power) and their effect on the size and morphology of the micro/nano-structured coordination polymer compounds have been investigated and the results will be presented in the conference.

## **Biography**

P Hayati has completed his PhD from Sistan and Baluchestan University in Iran and has obtained two Master's degrees, one in Inorganic Chemistry and another in Experimental Chemistry from Islamic Azad University and University of Autonuma from Iran and Spain, respectively. He has published more than 10 papers in reputed journals, has been published three books. He was a Researcher in Milan University for six months.

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