

# **SINTESIS METAL ORGANIC FRAMEWORK (MOF) UNTUK PENYIMPANAN HIDROGEN**

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**ABSTRACT:** Metal–organic frameworks (MOFs) which are constructed from metal ions or metal ion clusters and bridging organic linkers, have recently emerged as an important family of porous materials due to their unique structural and functional properties. This review provides the recent progress in synthesizing MOF structures. In this review, we present some methods of the inorganic synthesis chemistry for obtaining good crystal of MOF. We emphasize on the use of Microwave Assisted Solvothermal Synthesis due to some benefits it has, some of which are the efficiency of energy and time saving which are crucial for large scale application. Crystal Engineering as novel discipline in inorganic chemistry is also pertained by defining some basic terms generally used and its way in predicting MOF structures.

**Keywords:** Metal–organic framework; Hydrogen Storage; Crystal Engineering