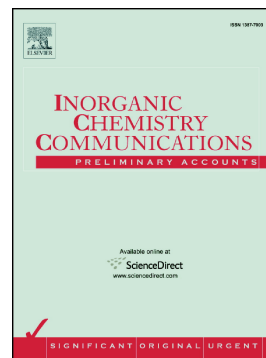


Accepted Manuscript

Two zinc(II) complexes based on (fluorene-9,9-diyl)di-propanoic acid (H₂L) and 1,3-bis(imidazol-1-yl)butane (BIB): Syntheses, crystal structures and luminescent properties

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PII: S1387-7003(17)30678-0
DOI: doi:[10.1016/j.inoche.2017.11.015](https://doi.org/10.1016/j.inoche.2017.11.015)
Reference: INOCHE 6834
To appear in: *Inorganic Chemistry Communications*
Received date: 18 August 2017
Revised date: 16 November 2017
Accepted date: 22 November 2017

Please cite this article as: Wei-bing Hu, Meng Wang, Wen Zhang, Da-ting Tian, Hai-yan Tan, Fu Feng, Xiang-Gao Meng , Two zinc(II) complexes based on (fluorene-9,9-diyl)di-propanoic acid (H₂L) and 1,3-bis(imidazol-1-yl)butane (BIB): Syntheses, crystal structures and luminescent properties. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Inoche(2017), doi:[10.1016/j.inoche.2017.11.015](https://doi.org/10.1016/j.inoche.2017.11.015)

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Two Zinc(II) complexes based on (fluorene-9,9-diyl)di-propanoic acid (H₂L) and 1,3-bis(imidazol-1-yl)butane (BIB): Syntheses, Crystal Structures and Luminescent properties

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Abstract: Two Zinc(II) metal-organic coordination polymers, namely [ZnL(BIB)]_n·n(EtOH) (**1**) and [ZnL(BIB)]_n (**2**) (where H₂L=(fluorene-9,9-diyl)di-propanoic acid and BIB=1,3-bis(imidazol-1-yl)butane) have been synthesized using the same starting reactants but different solvent medium. Both the complexes have been structurally characterized. Compound (**1**) exhibits a two-dimensional (2D) coordination framework. However, complex (**2**) is composed of 2D structure which is further resulted in a 3-fold interpenetrating structure. Thermogravimetric analyses (TGA) and luminescent properties of these two complexes have been discussed.

Key Words: metal-organic coordination polymers, fluorene, luminescent properties

In the past decades, crystal-engineering design has attracted a bundle of interests, owing to their various intriguing molecular topologies and potential applications in the fields of magnetism, luminescence and permanent porosity^[1-4]. However, it is well known that crystallization is a complicated process, during which the temperature, pH

*Corresponding author: Fu Feng, E-mail address: fengfu2010@163.com, Tel: + 86 015027224903, Electronic supplementary information (ESI) available: CCDC 1569561–1569562. For crystallographic data of **1** and **2** in CIF format.

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