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Synchronous detection of ebolavirus conserved RNA sequences and ebolavirus-encoded miRNA-like fragment based on a zwitterionic copper (II) metal–organic framework

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*Abstract* From a three-dimensional (3D) metal–organic framework (MOF) of  $\{[\text{Cu}(\text{Cm}dcp)(\text{phen})(\text{H}_2\text{O})_2 \cdot 9\text{H}_2\text{O}]_n\}$  (1,  $\text{H}_3\text{Cm}dcp\text{Br}$  = *N*-carboxymethyl-(3,5-dicarboxyl)pyridinium bromide, phen = phenanthroline), a sensitive and selective fluorescence sensor has been developed for the simultaneous detection of ebolavirus conserved RNA sequences and ebolavirus-encoded microRNA-like (miRNA-like) fragment. The results from molecular dynamics simulation confirmed that MOF 1 absorbs carboxyfluorescein (FAM)-tagged and 5(6)-carboxyrhodamine, triethylammonium salt (ROX)-tagged probe ss-DNA (probe

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