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8-Amidoquinoline Containing Glycinyl Group as Turn-on Fluorescent Sensors for Zn(II).

Fluorescent chemosensors for Zn(II) are attractive for microscopy and imaging for studying the role of Zn(II) biological in biological system. In this work, we discovered that 8-aminoquinoline containing amino group at alpha-position of the amino acid (**1**) pendant was effective for Zn(II) fluorescence imaging in plant tissue. In the presence of Zn(II) in aqueous media, ligand **1** exhibits selective fluorescence enhancement at 504 nm with a remarkable 24-fold increase of the fluorescence quantum yield. To tune the emission color and test for the generality of the core ligand, 5-arylethnyl-8-aminoquinoline derivatives were synthesized to study the effect of the electronic effects on the fluorescence responses of the ligands upon the complexation with Zn(II).

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