

Supplementary Material for Dalton Transactions

**Synthesis, Characterization, Mechanochromism and Photochromism of
[Fe(dm4bt)₃][FeCl₄]₂ and [Fe(dm4bt)₃][FeBr₄]₂, Along with the Investigation of
Steric Influence on Spin State**

Anita Abedi,^a Nasser Safari,^b Vahid Amani^b and Hamid Reza Khavasi^b

^a*Department of Chemistry, North Tehran Branch, Islamic Azad University, Tehran, Iran*

^b*Department of Chemistry, Shahid Beheshti University, P.O. Box 1983963113, G. C., Evin, Tehran, Iran*

Supplementary Information:

¹H NMR spectra of 2,2'-dimethyl-4,4'-bithiazole (**dm4bt**) in acetonitrile-*d*₃

¹H NMR spectrum of complex **1** in acetonitrile-*d*₃

¹H NMR spectrum of complex **2** in acetonitrile-*d*₃

Temperature dependent ¹H NMR spectrum of complex **2** in acetonitrile-*d*₃.

Crystal packing diagram of complex **1** and **2**.

* E-mail: n-safari@cc.sbu.ac.ir; Tel.: +98-21-2990 2886; Fax: +98-21-2243 1661

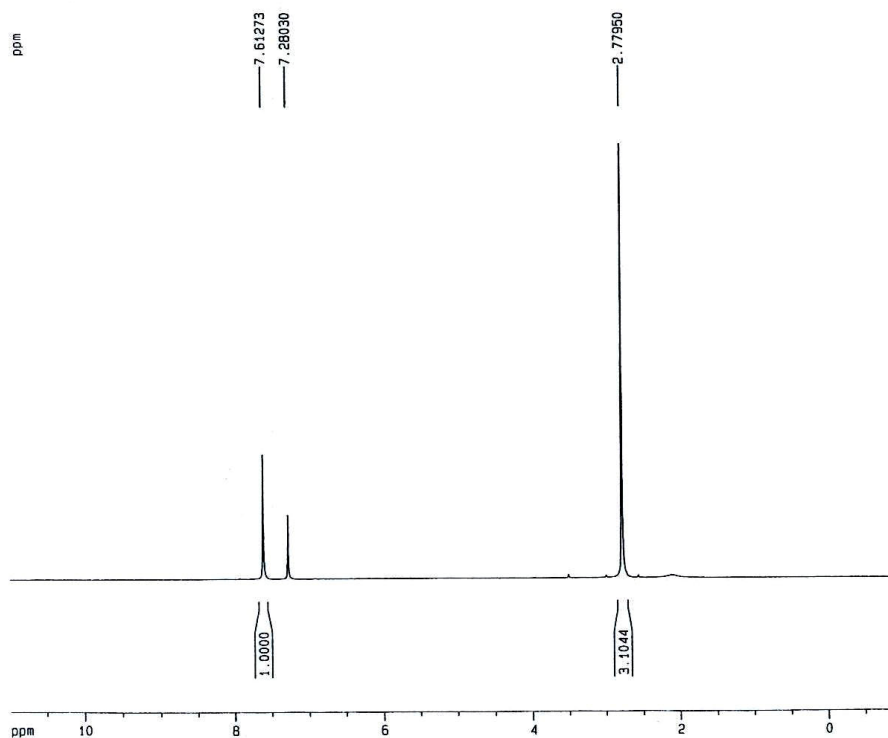


Fig. S1 ¹H NMR spectra of 2,2'-dimethyl-4,4'-bithiazole (**dm4bt**) in acetonitrile-*d*₃

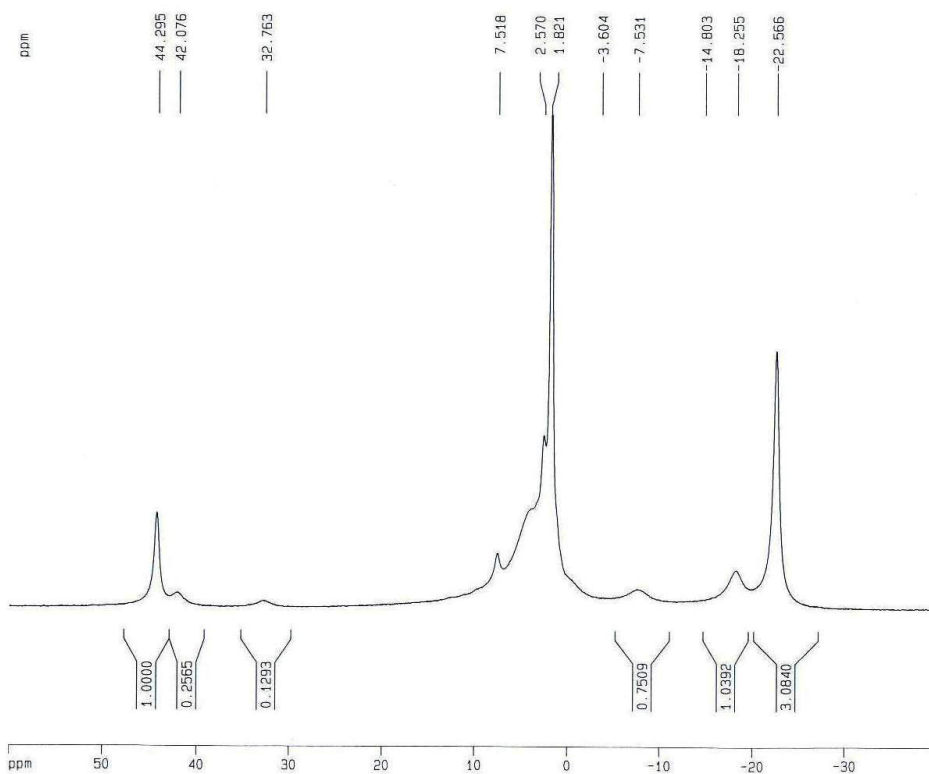


Fig. S2 ¹H NMR spectrum of complex **1** in acetonitrile-*d*₃

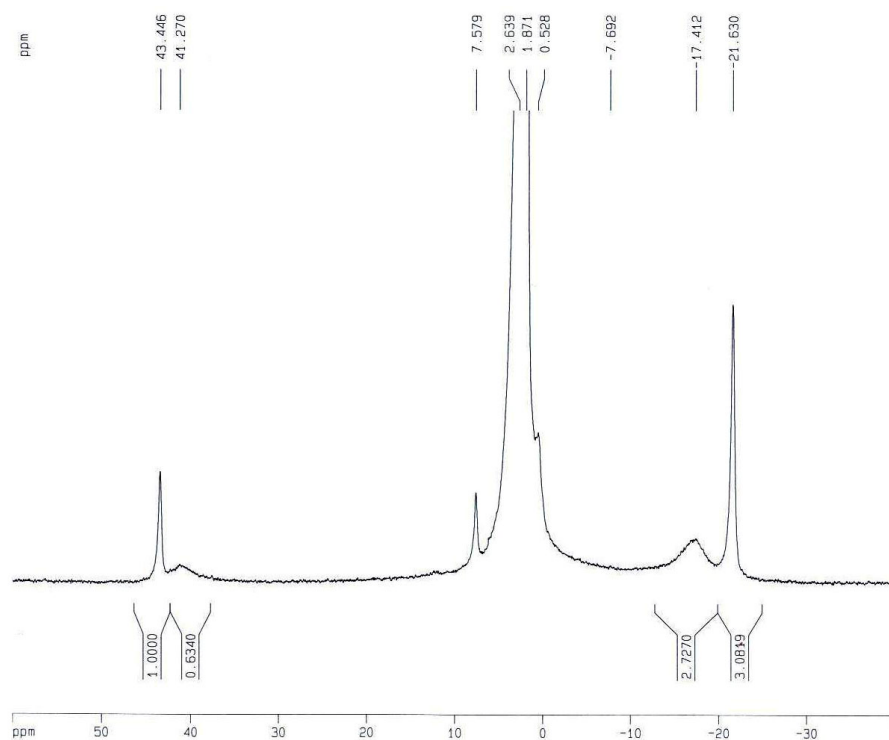


Fig. S3 ^1H NMR spectrum of complex **2** in acetonitrile- d_3

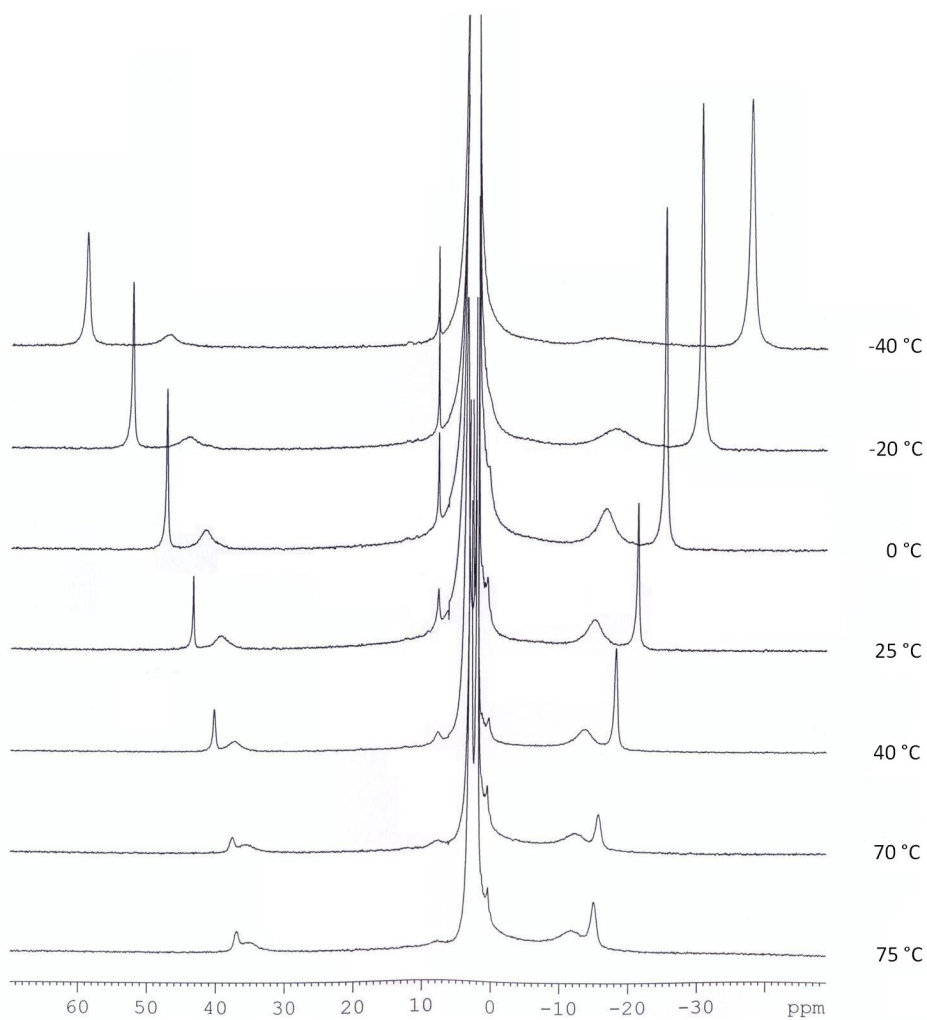


Fig. S4 Temperature dependent ^1H NMR spectrum of complex 2 in acetonitrile- d_3 .

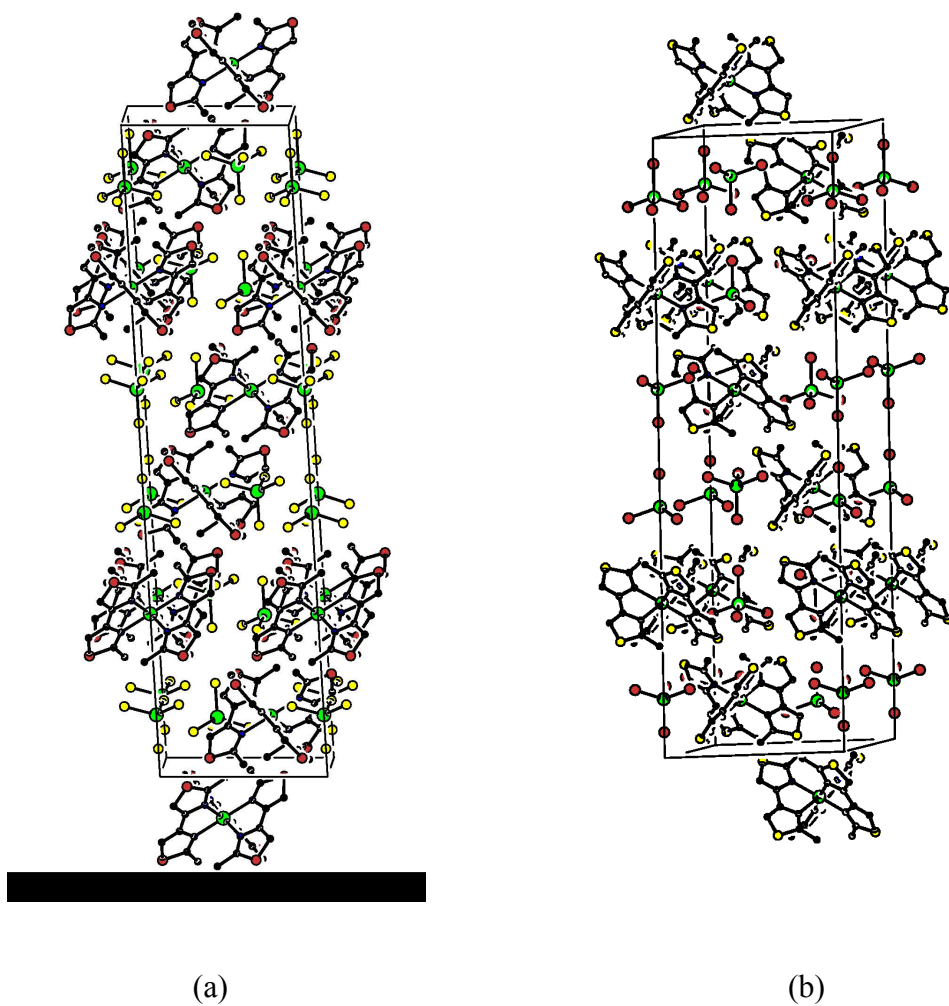


Fig. S5 Crystal packing diagram of complex 1 (a) and 2 (b). Hydrogen atoms are omitted for clarity.