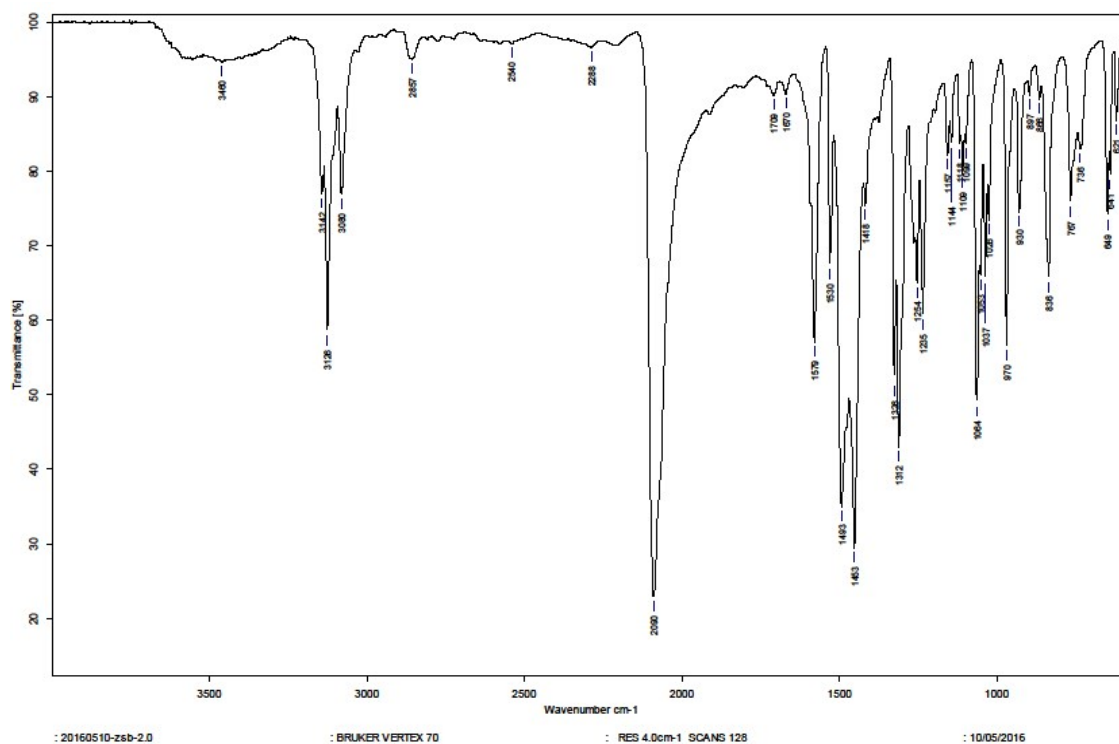


A series of new mixed-ligand complexes based on 3,6-bis(imidazol-1-yl)pyridazine: syntheses, structures, and catalytic activities

Sheng-Bin Zhou^a, Xin-Fang Wang^a, Ceng-Ceng Du^a, Duo-Zhi Wang^{*a, b}, Dianzeng Jia^b

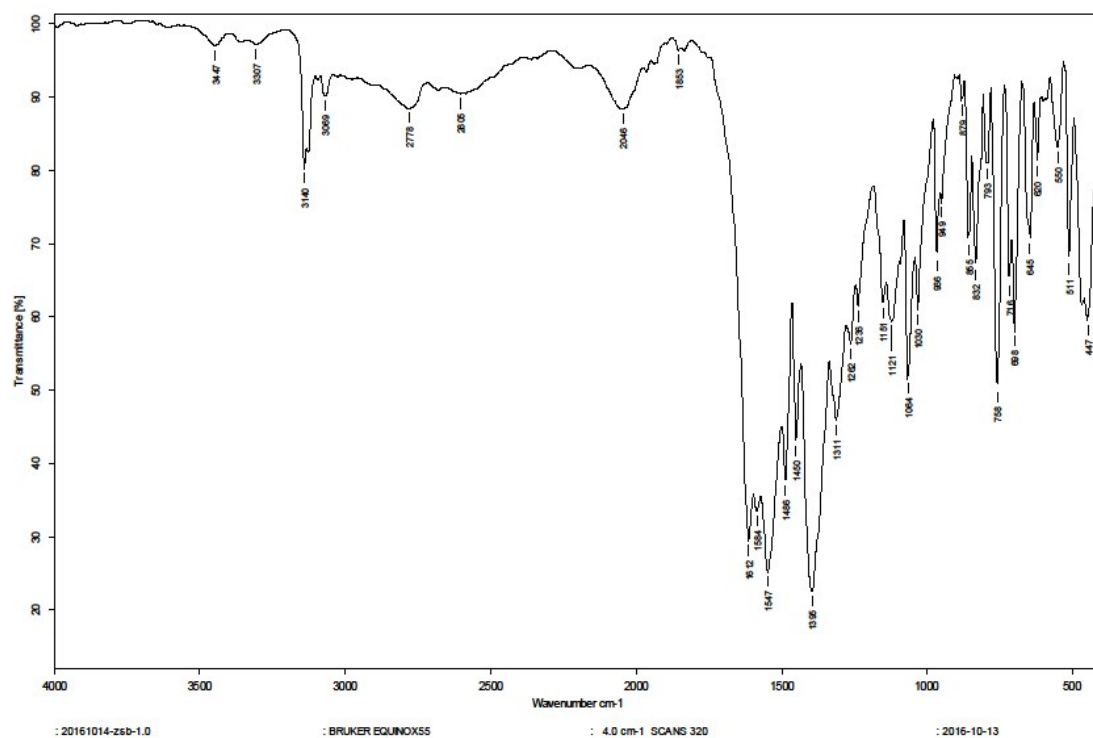
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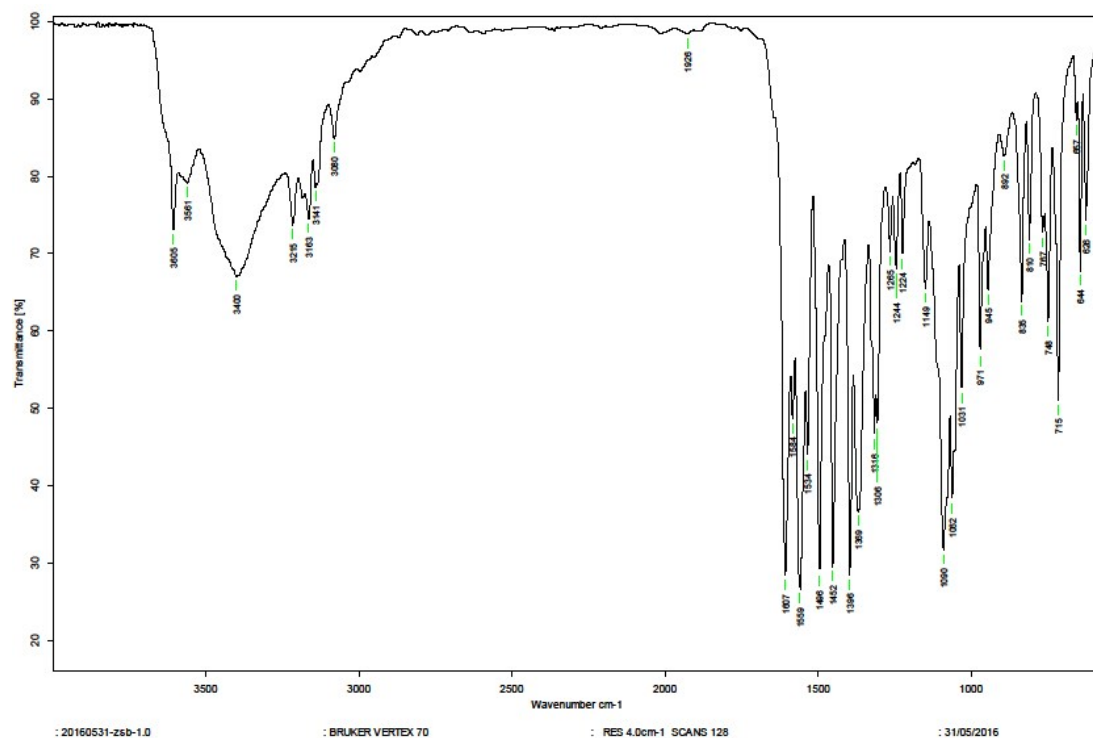


IR spectra of complex 1

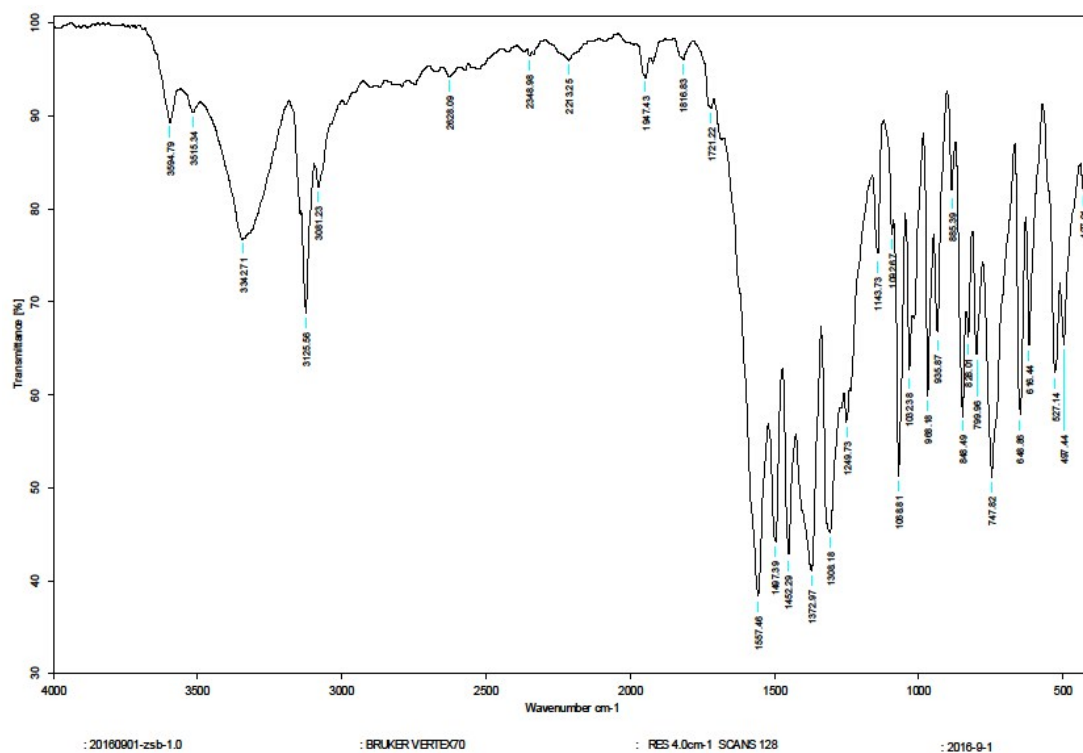
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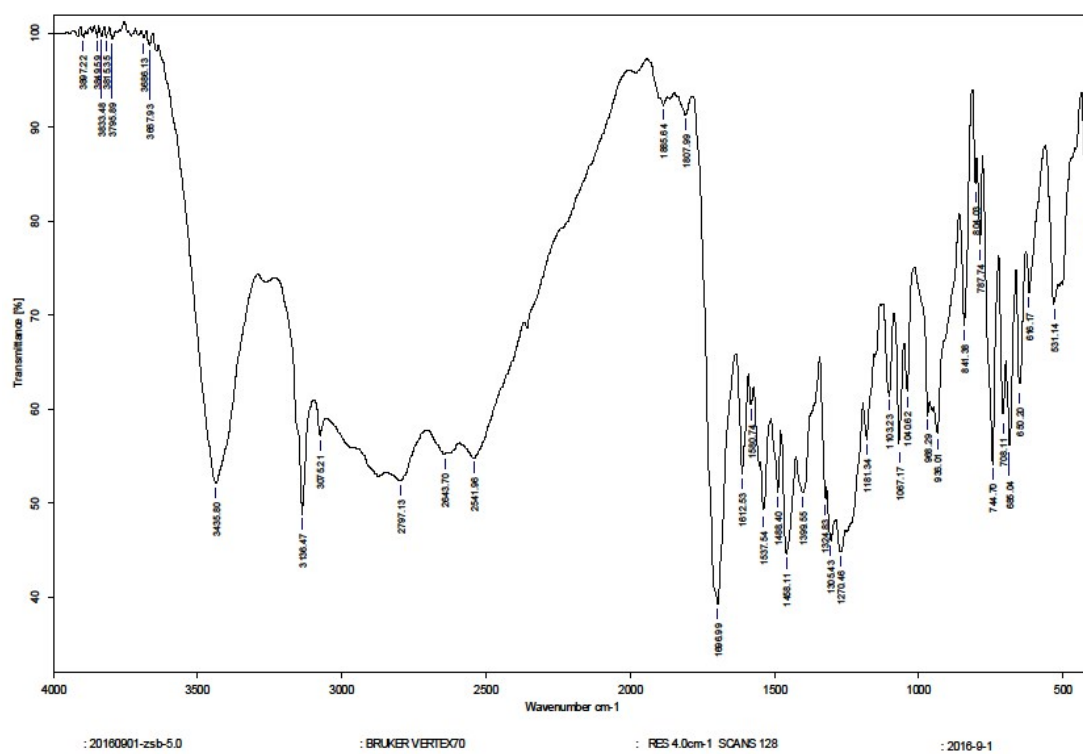
The IR spectra of complex 2



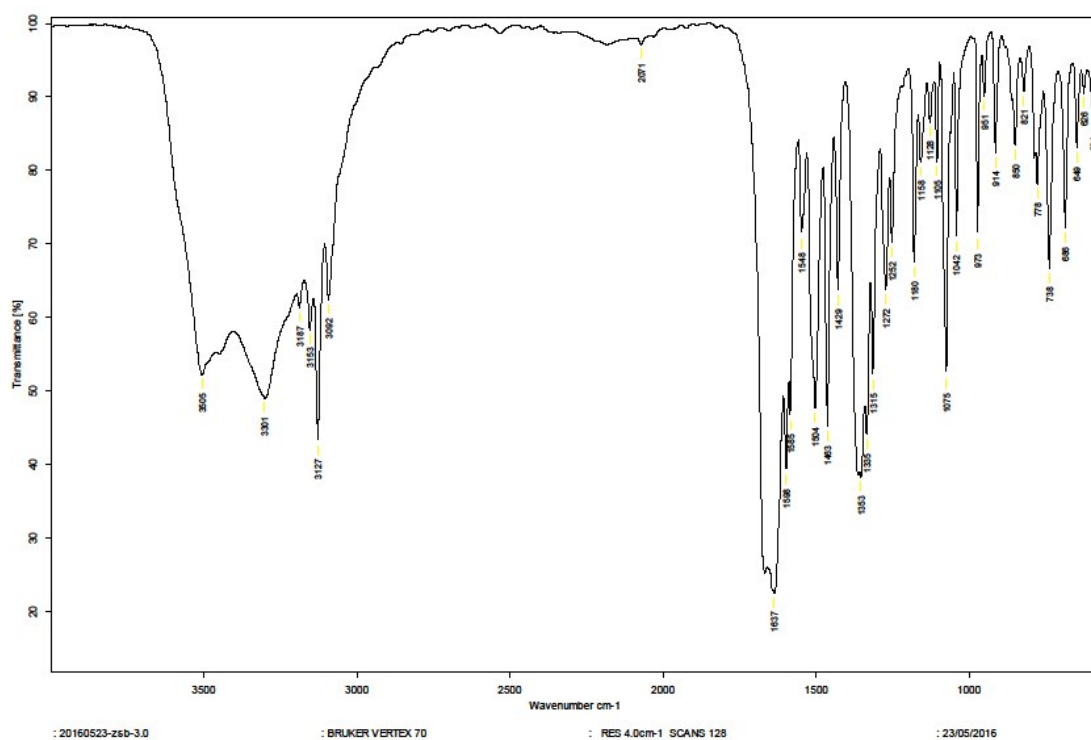
The IR spectra of complex 3



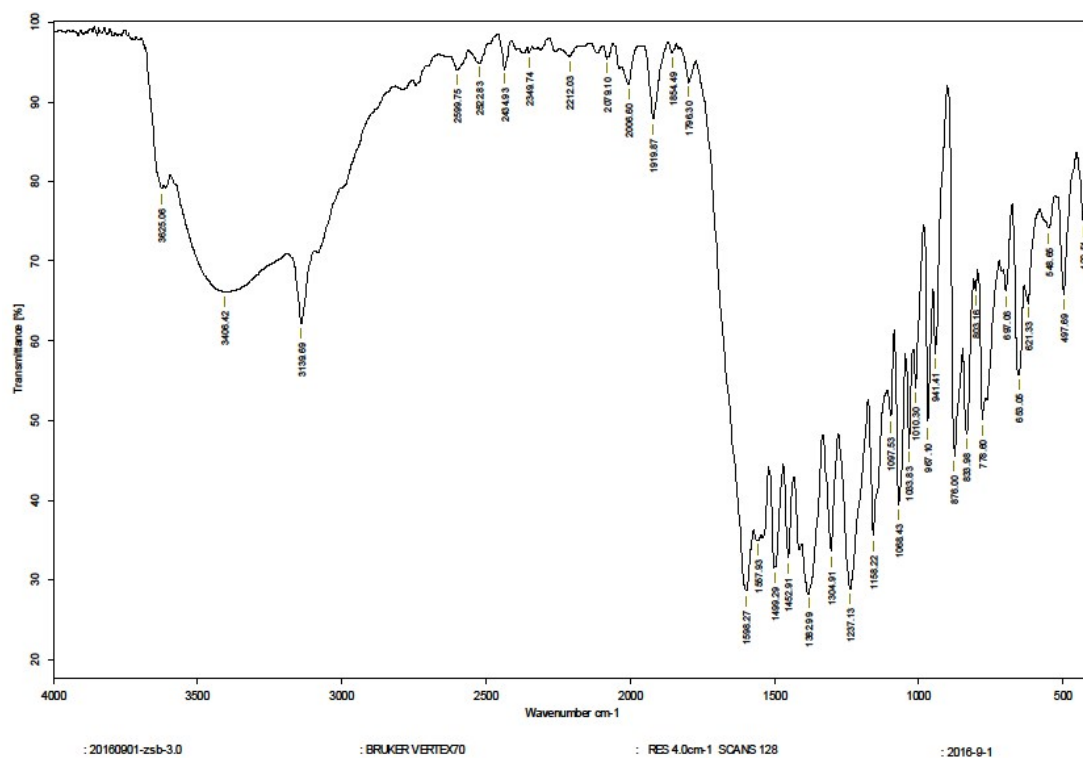
The IR spectra of complex 4



The IR spectra of complex 5

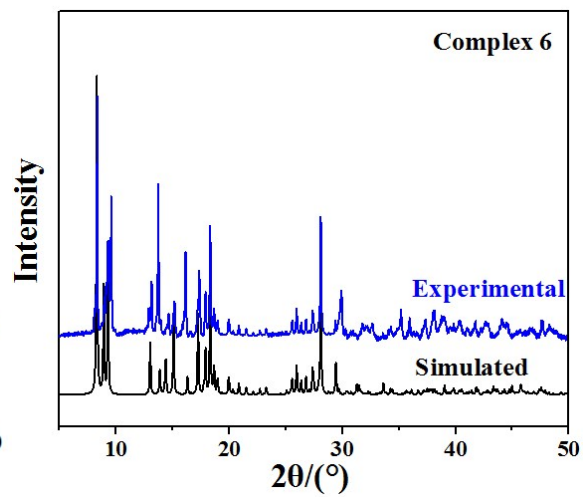
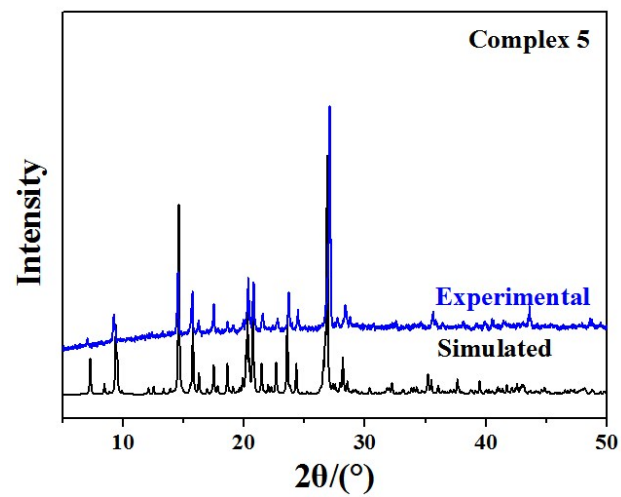
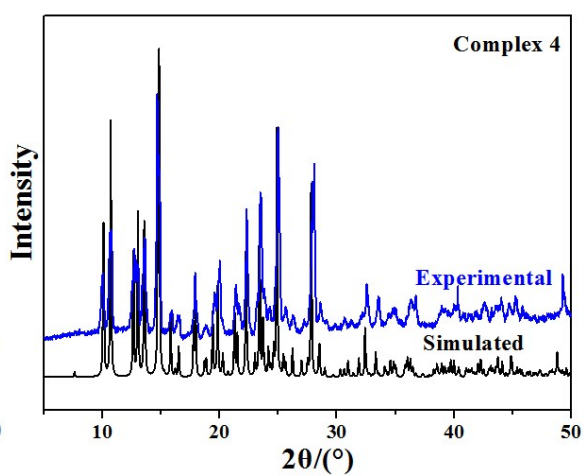
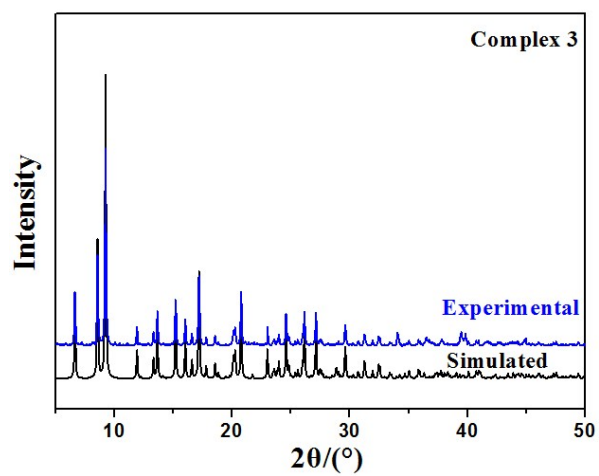
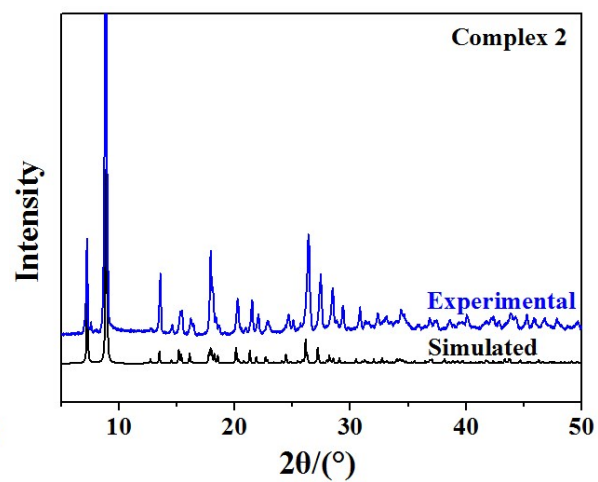
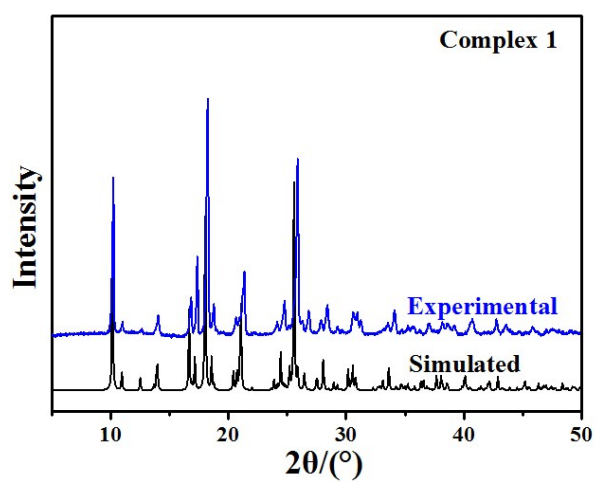


The IR spectra of complex 6



The IR spectra of complex 7

Fig. S1. The IR spectra of complexes 1-7



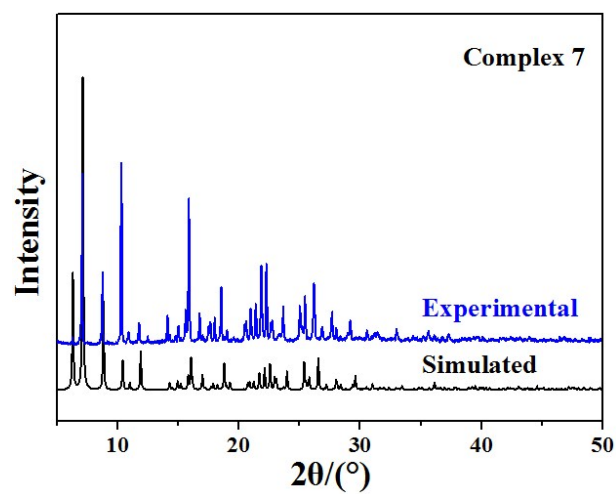


Fig. S2. PXRD patterns of 1–7.

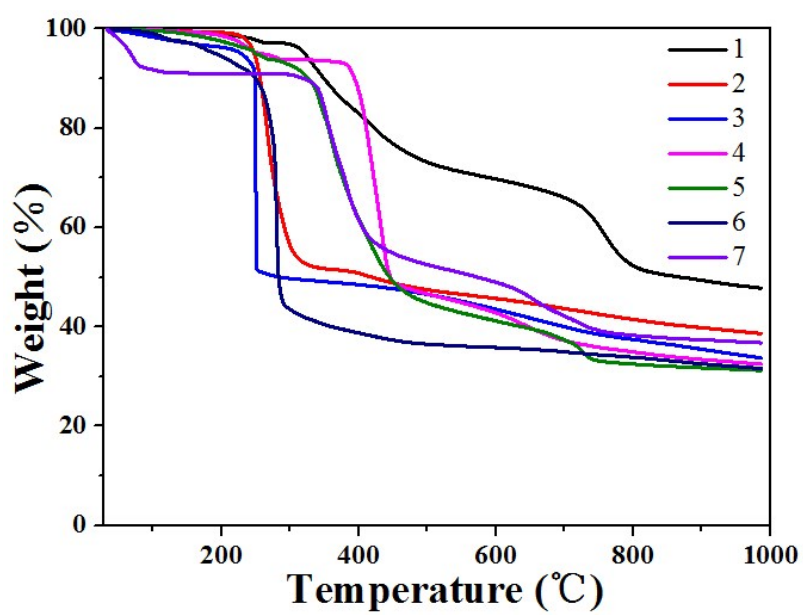
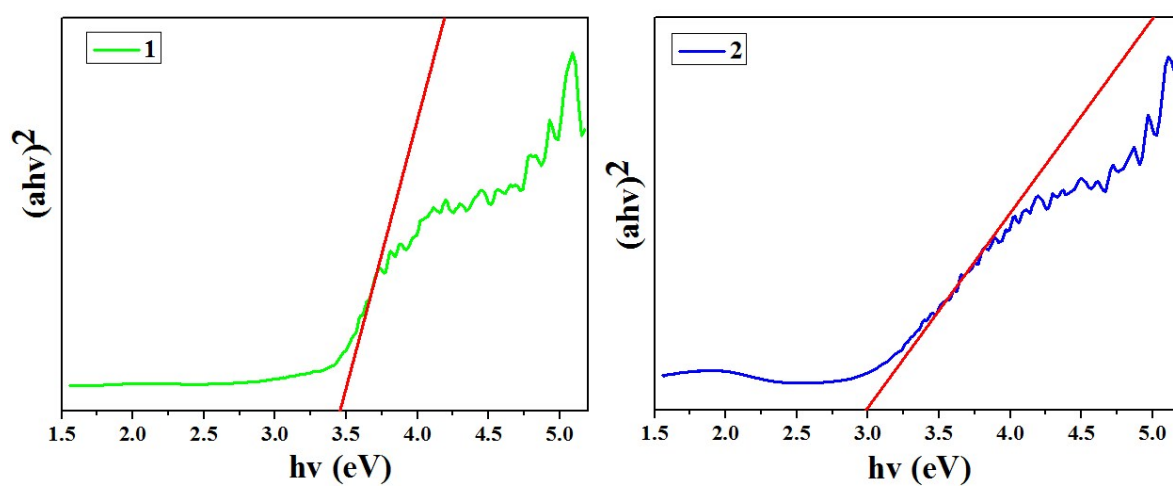


Fig. S3. TGA curves of complexes 1–7.



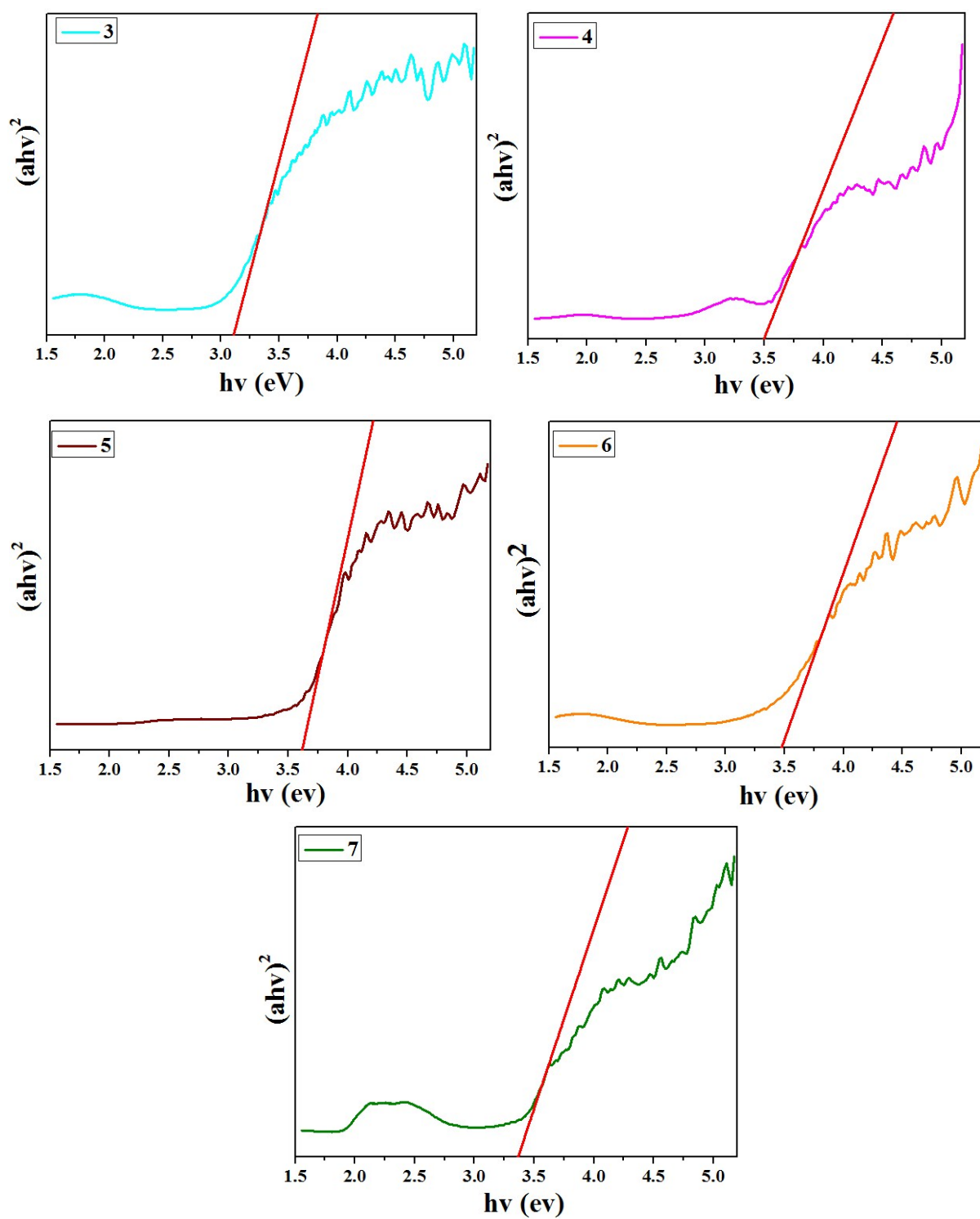
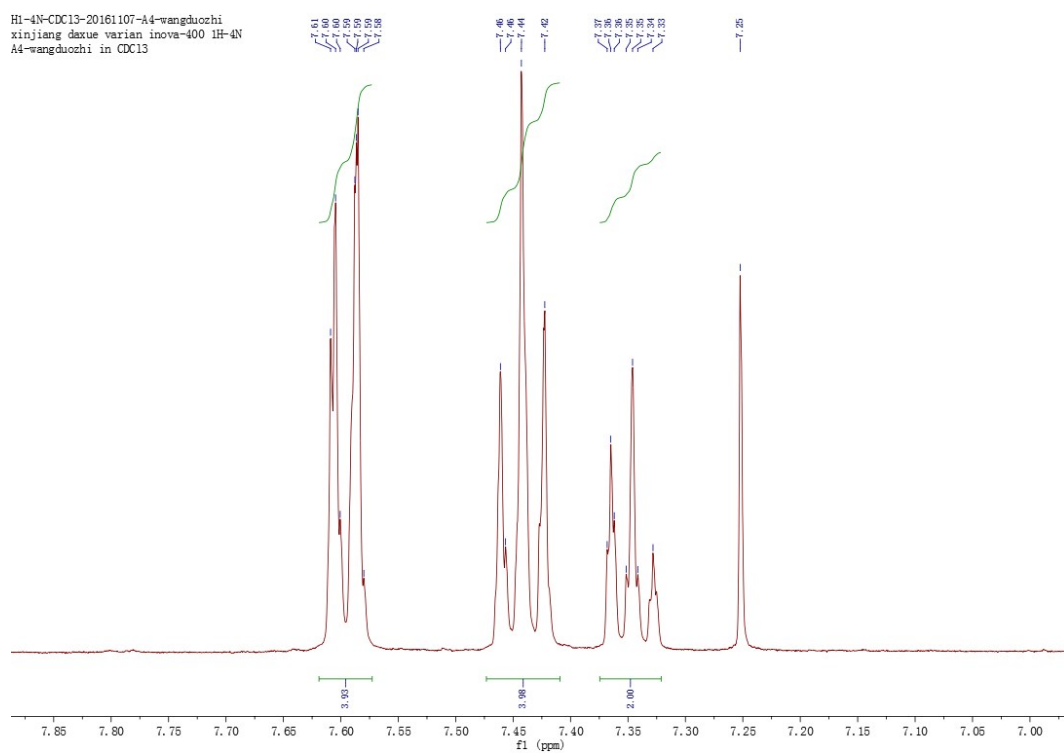


Figure S4. Diffuse reflectance UV-VIS-NIR spectra of K–M functions versus energy (eV) of complexes 1–7.

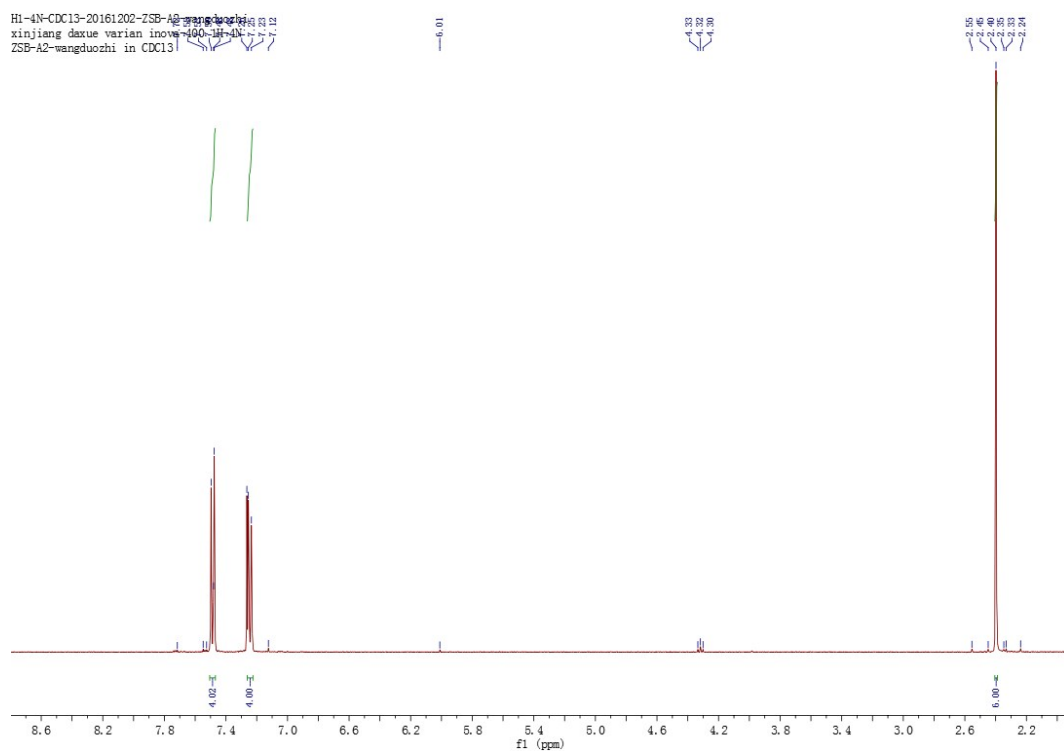
^1H NMR spectra for Bibenzene

^1H NMR (400 MHz, CDCl_3): δ : 7.59 (dd, $J = 8.4, 1.6$ Hz, 4H), 7.44 (t, $J = 10.4$ Hz, 4H), 7.35 (dd, $J = 4.4, 2.0$ Hz, 2H).



¹H NMR spectra for 4,4'-Dimethylbiphenyl

¹H NMR (400 MHz, CDCl₃): δ: 7.49 (t, $J = 6.4, 2.0$ Hz, 4H), 7.24 (d, $J = 7.2$ Hz, 2.0 Hz, 4H), 2.40 (s, 6H).



¹H NMR spectra for 4,4'-Dimethoxybiphenyl

¹H NMR (400 MHz, CDCl₃): δ: 7.49 (t, $J = 6.4, 2.0$ Hz, 4H), 7.24 (t, $J = 6.8$ Hz, 2.0 Hz, 4H), 3.84 (s, 6H).

HI-4N-CDC13-20161214-7576-3 wangduozhi
xinjiang daxue-xinjiang daxue-400 1H-400
ZSE-A3-wangduozhi in CDCl3

