NMR Study on the aggregation of N, N'-Bis (4-N-Alkylo-Xybenzoyl) Hydrazine (4Dn) in two aromatic solvents

Jianxi Song,[a,b] Haitao Wang*[a] and Min Li*[a]

[a]Key Laboratory of Automobile Materials, Ministry of Education, Institute of Materials Science and Engineering, Jilin University, Changchun 130012, China

[b]Center of Analytical and Testing, Beihua University, Jilin 132013, China.

Supporting information

Table s1 Solvent Effects on Gelation

Solvents	CGC of 4D16 (mM)	α	β	π^*
Hexane	G (5.7)	0	0	-0.04
n-pentane	G (7.9)	0	0	-0.08
Methycyclohexane	G (8.1)			
Cyclohexane	G (10.7)	0	0	0
Toluene	G (14)	0	0.11	0.54
Benzene	G (21.4)	0	0.10	0.59
Ethyl ether	G (25)	0	0.47	0.27
1,2-Dichloroethane	G (25)	0	0.10	0.81
Ethyl acetate	G (27.5)	0	0.45	0.55
THF	G (45)	0	0.55	0.58
DMF	G (25)	0	0.69	0.88
DMSO	G (30)	0	0.76	1.00
n-butanol	P	0.84	0.84	0.47
Acetone	P	0.08	0.43	0.71
Ethanol	P	0.86	0.76	0.54

α, β and π^* are hydrogen bond donating ability, hydrogen bond accepting ability and polarizability, respectively, according to Kamlet-Taft parameter.

G: stable gel formed in ambient temperature; P: precipitate

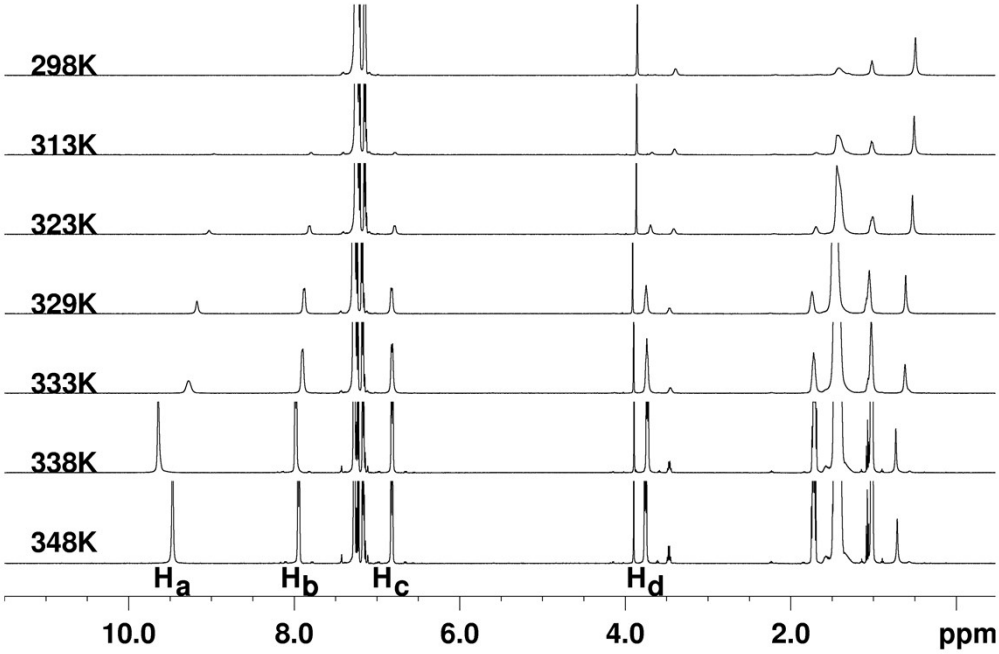

Figure S1. Superimposition of 4D16 (24 mM) ^{1}H NMR spectra recorded in benzene-d_6 at different temperatures.

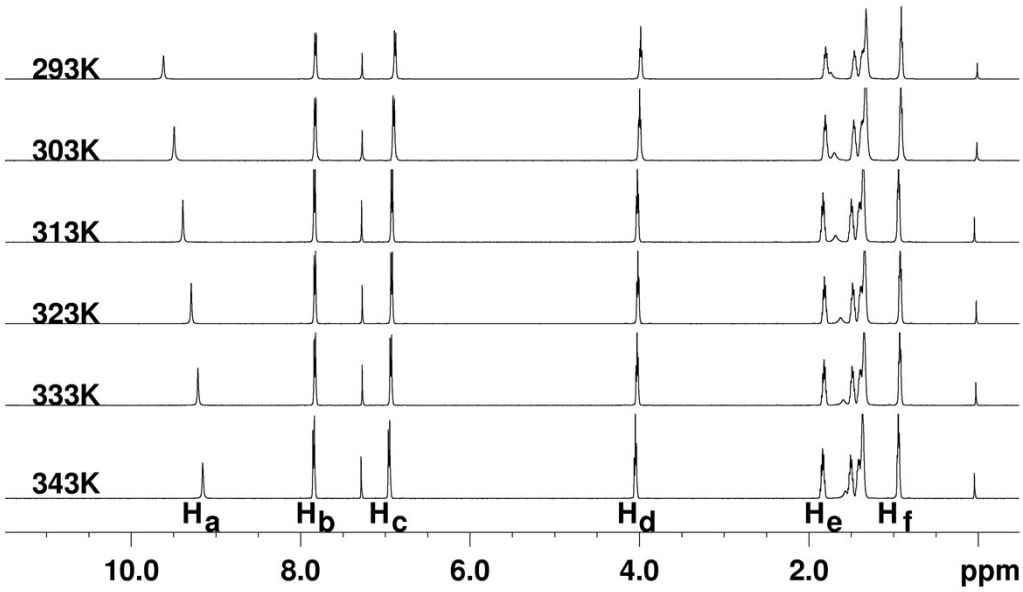

Figure S2. Superimposition of 4D7 (50 mM) ^{1}H NMR spectra recorded in chloroform-d_1 at different temperatures.

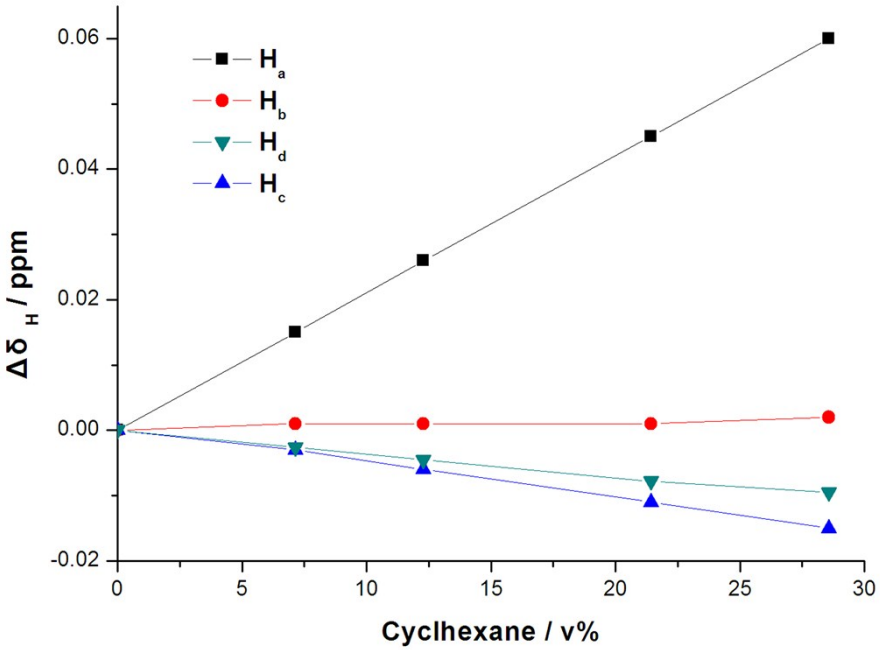

Figure S3. Peak shifts with various volume percentages of cyclhexane in cyclhexane/chloroform-d_1 mixture solvents for 4D7 (8.1mM).