

ESI

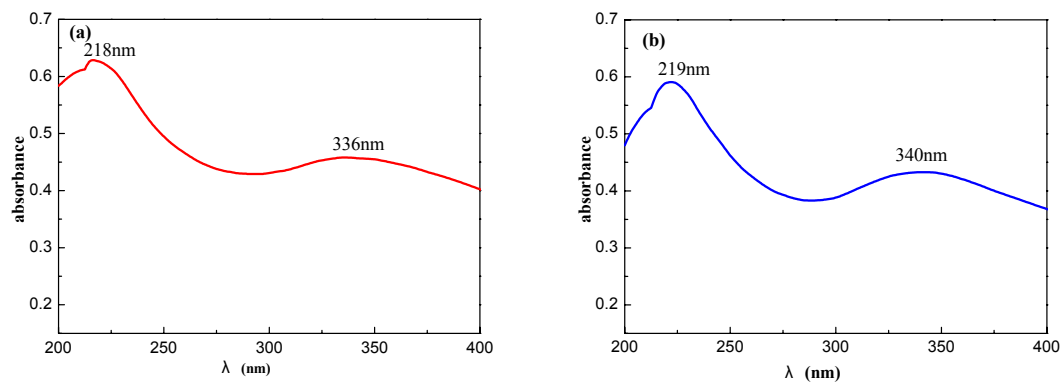


Fig. s1: UV-Vis spectra for compound 1 (a) and compound 2 (b).

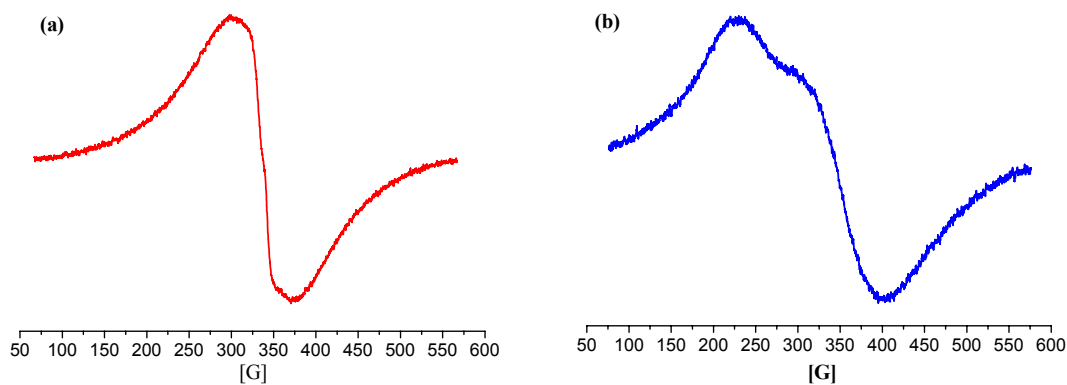
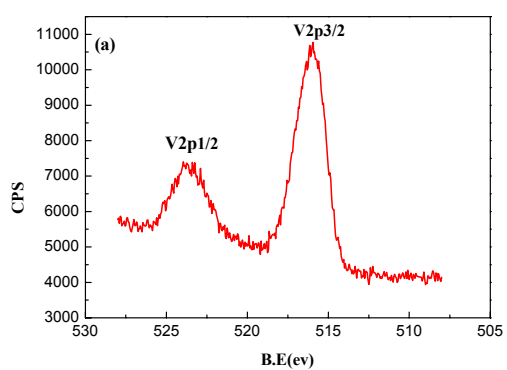


Fig. s2: ESR spectra for compound 1 (a) and 2 (b).



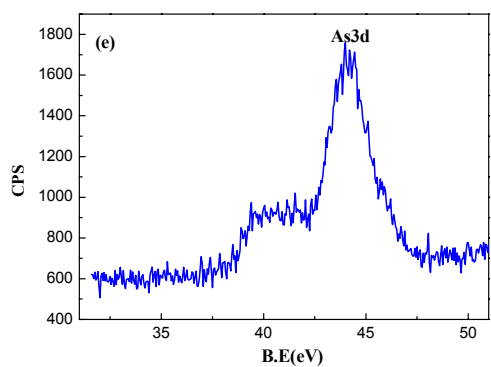
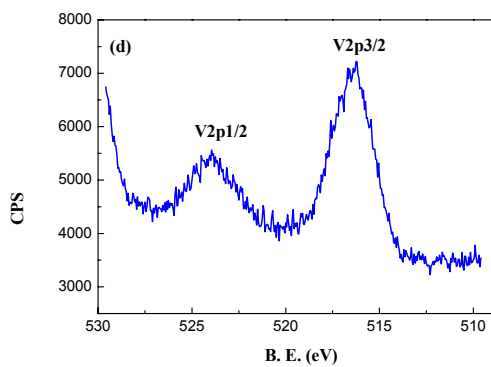
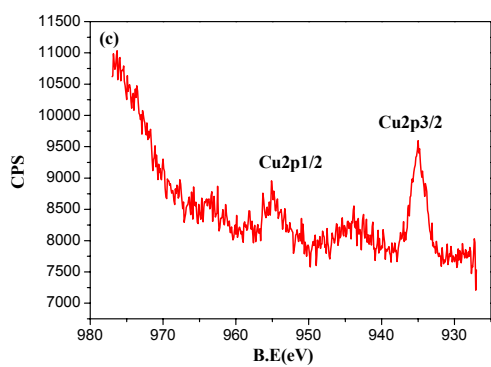
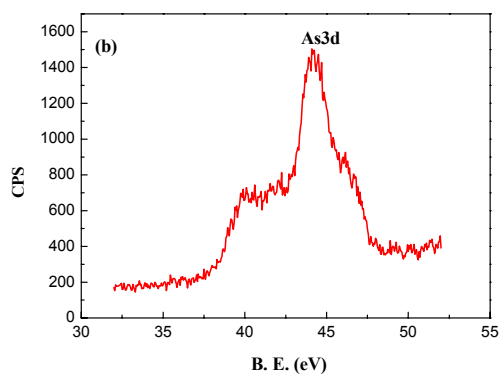


Fig. s3: XPS spectra for As(a), V(b) and Cu(c) in compound **1** and XPS spectra for As(d) and V(e) in compound **2**.

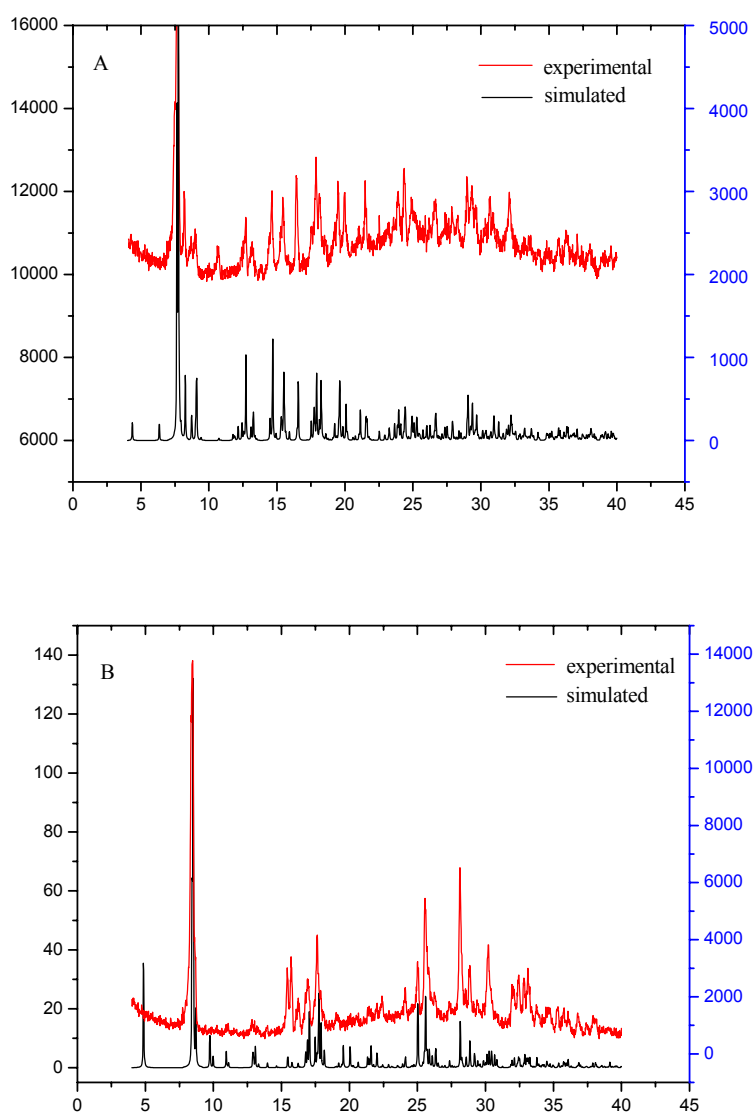


Fig. s4: (a) XRD pattern for compound 1. (b) XRD pattern for compound 2.

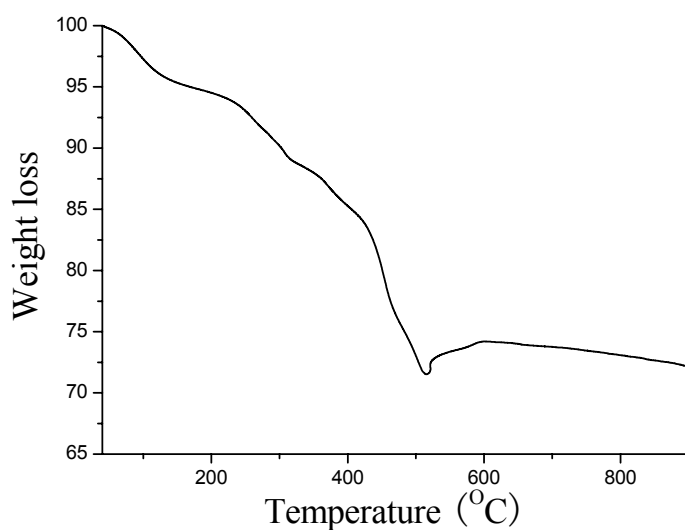


Fig. S5: The TG curve for compound 1.

Table s1: Selected bond lengths of compound 1 and 2.

Bond lengths in compound 1.			
As(1)-O(23)	1.772(6)	V(5)-O(37)	1.936(5)
As(1)-O(10)	1.776(6)	V(5)-O(23)	1.996(6)
As(1)-O(28)	1.779(6)	V(5)-O(34)	2.028(6)
As(2)-O(22)	1.752(6)	V(6)-O(2)	1.602(7)
As(2)-O(31)	1.763(6)	V(6)-O(25)	1.904(5)
As(2)-O(10)	1.782(6)	V(6)-O(39)	1.941(5)
As(3)-O(34)	1.758(5)	V(6)-O(12)	2.003(6)
As(3)-O(29)	1.766(5)	V(6)-O(30)	2.015(6)
As(3)-O(38)	1.775(6)	V(7)-O(9)	1.612(6)
As(4)-O(24)	1.755(6)	V(7)-O(16)	1.902(5)
As(4)-O(30)	1.768(5)	V(7)-O(33)	1.905(5)
As(4)-O(38)	1.807(6)	V(7)-O(31)	1.995(6)
As(5)-O(27)	1.752(5)	V(7)-O(35)	2.001(6)
As(5)-O(13)	1.778(6)	V(8)-O(5)	1.620(5)
As(5)-O(35)	1.778(5)	V(8)-O(42)	1.913(5)
As(6)-O(12)	1.761(5)	V(8)-O(16)	1.930(6)
As(6)-O(14)	1.777(6)	V(8)-O(14)	1.963(6)
As(6)-O(13)	1.795(6)	V(8)-O(35)	1.987(5)
Cu(1)-N(1)	1.998(8)	V(9)-O(15)	1.634(5)
Cu(1)-N(1)#1	1.998(8)	V(9)-O(36)	1.905(5)
Cu(1)-N(2)	2.029(7)	V(9)-O(41)	1.920(6)
Cu(1)-N(2)#1	2.029(7)	V(9)-O(24)	1.975(6)
Cu(2)-N(3)	1.968(16)	V(9)-O(34)	1.990(5)
Cu(2)-N(5)	1.981(12)	V(10)-O(8)	1.602(6)

Cu(2)-N(4)	2.019(10)	V(10)-O(40)	1.927(5)
Cu(2)-N(6)	2.071(11)	V(10)-O(42)	1.927(6)
Cu(2)-O(4)	2.398(5)	V(10)-O(39)	1.964(6)
Cu(3)-N(8)	1.991(8)	V(10)-O(14)	2.018(6)
Cu(3)-N(10)	1.992(8)	V(11)-O(7)	1.608(6)
Cu(3)-N(7)	2.018(9)	V(11)-O(32)	1.941(5)
Cu(3)-N(9)	2.020(8)	V(11)-O(42)	1.948(6)
V(1)-O(1)	1.616(7)	V(11)-O(16)	1.964(5)
V(1)-O(21)	1.916(6)	V(11)-O(22)	2.030(6)
V(1)-O(33)	1.920(6)	V(12)-O(4)	1.609(6)
V(1)-O(28)	1.984(6)	V(12)-O(21)	1.917(6)
V(1)-O(31)	1.989(6)	V(12)-O(26)	1.927(6)
V(2)-O(19)	1.596(6)	V(12)-O(33)	1.965(6)
V(2)-O(26)	1.929(5)	V(12)-O(27)	2.031(5)
V(2)-O(25)	1.930(6)	V(13)-O(20)	1.612(5)
V(2)-O(27)	1.996(6)	V(13)-O(36)	1.930(6)
V(2)-O(12)	2.000(6)	V(13)-O(21)	1.933(5)
V(3)-O(18)	1.603(6)	V(13)-O(41)	1.952(5)
V(3)-O(40)	1.914(6)	V(13)-O(28)	2.013(6)
V(3)-O(39)	1.918(5)	V(14)-O(6)	1.601(6)
V(3)-O(29)	1.979(6)	V(14)-O(26)	1.926(5)
V(3)-O(30)	2.013(5)	V(14)-O(36)	1.944(6)
V(4)-O(3)	1.601(6)	V(14)-O(25)	1.953(5)
V(4)-O(32)	1.908(5)	V(14)-O(24)	2.035(5)
V(4)-O(37)	1.947(6)	V(15)-O(17)	1.598(6)
V(4)-O(22)	1.987(6)	V(15)-O(32)	1.906(6)
V(4)-O(23)	1.991(6)	V(15)-O(40)	1.936(5)
V(5)-O(11)	1.592(6)	V(15)-O(37)	1.958(5)
V(5)-O(41)	1.918(5)	V(15)-O(29)	2.009(6)
Bond lengths in compound 2.			
As(1)-O(6)	1.762(8)	V(5)-O(31)	1.980(9)
As(1)-O(33)	1.789(9)	V(5)-O(11)	1.985(9)
As(1)-O(4)	1.789(8)	V(6)-O(35)	1.607(9)
As(2)-O(11)	1.761(8)	V(6)-O(36)	1.937(8)
As(3)-O(34)	1.768(9)	V(8)-O(25)	1.929(8)
As(3)-O(10)	1.802(8)	V(8)-O(4)	1.949(8)
As(6)-O(16)	1.737(9)	V(8)-O(36)	1.906(9)
As(6)-O(15)	1.786(9)	V(8)-O(32)	1.999(9)
As(6)-O(9)	1.789(9)	V(9)-O(39)	1.992(10)
As(7)-O(14)	1.748(9)	V(9)-O(22)	1.926(9)
As(7)-O(39)	1.768(9)	V(9)-O(49)	1.980(10)
As(7)-O(15)	1.780(9)	V(9)-O(33)	1.983(9)
As(8)-O(8)	1.779(9)	V(9)-O(21)	1.986(9)

As(8)-O(30)	1.783(11)	V(10)-O(18)	1.596(8)
As(8)-O(41)	1.785(10)	V(10)-O(17)	1.924(9)
V(1)-O(34)	1.590(10)	V(10)-O(25)	1.935(9)
V(1)-O(9)	1.955(9)	V(10)-O(24)	1.997(9)
V(1)-O(8)	1.970(9)	V(10)-O(26)	2.017(9)
V(1)-O(10)	1.989(8)	V(11)-O(21)	1.604(9)
V(1)-O(6)	1.991(9)	V(11)-O(17)	1.930(9)
V(2)-O(7)	1.594(9)	V(11)-O(22)	1.941(9)
V(2)-O(25)	1.896(9)	V(11)-O(23)	1.969(9)
V(2)-O(1)	1.904(9)	V(11)-O(24)	1.977(9)
V(2)-O(6)	1.985(8)	V(12)-O(27)	1.610(10)
V(2)-O(8)	2.005(9)	V(12)-O(17)	1.920(10)
V(3)-O(40)	1.604(9)	V(12)-O(22)	1.941(10)
V(3)-O(19)	1.938(10)	V(12)-O(42)	1.978(10)
V(3)-O(5)	1.956(10)	V(12)-O(16)	2.010(10)
V(3)-O(10)	1.977(9)	V(13)-O(28)	1.570(10)
V(3)-O(9)	1.986(9)	V(13)-O(16)	1.965(9)
V(4)-O(38)	1.625(10)	V(13)-O(29)	1.975(10)
V(4)-O(12)	1.917(9)	V(13)-O(42)	1.983(10)
V(4)-O(36)	1.948(8)	V(13)-O(14)	1.997(10)
V(4)-O(4)	1.972(8)	V(14)-O(13)	1.629(10)
V(4)-O(11)	1.990(9)	V(14)-O(36)	1.926(9)
V(5)-O(37)	1.591(9)	V(14)-O(12)	1.931(9)
V(5)-O(5)	1.930(9)	V(14)-O(29)	1.983(10)
V(5)-O(12)	1.941(9)	V(14)-O(14)	2.004(9)