**Figure S1.** Inductively coupled plasma-optical emission spectrometry (ICP-OES) analyses of **BCCMNPs-VI**.

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**Figure S2.** FT-IR spectra of immature **CCMNPs** (a); **BCCMNPs-VI** (b); and the reclaimable **BCCMNPs-VI** after nine runs (c).

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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\data2\IR\IR of catalyst modares uni\Cat A-initial.jpg** |
| **CCMNPs** (a) |
|  |
| C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\data2\IR\IR of catalyst modares uni\Cat B-basic.jpg |
| **BCCMNPs-VI** (b) |
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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\data2\IR\IR of catalyst modares uni\Cat B B-recovered.jpg** |
| **BCCMNPs-VI** after nine runs (c). |

**Figure S3.** XRD patterns of immature **CCMNPs** (a); **BCCMNPs-VI** (b); and the reclaimable **BCCMNPs-VI** after nine runs (c).

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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\xRD\Fe3O4@c\Report_multipage.tif** |
| **CCMNPs** (a) |
|  |
| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\xRD\catalyst (1.8 naoh)\Identify_multipage.tif** |
| **BCCMNPs-VI (b)** |
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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\data2\readed\xrd recovered\Report_multipage.tif** |
| **the reclaimable BCCMNPs-VI after nine runs (c)** |

**Figure S4.** Thermal gravimetric analysis (TGA) and derivative thermal gravimetric (DTG) diagrams of the **CCMNPs** (a); and **BCCMNPs-VI** (b); along with differential scanning calorimetry (DSC) diagram of the **BCCMNPs-VI** (c).

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| **C:\Users\Soleimani\Desktop\Somayeh\student\1- graduated students\samiei\experimental result\catalysts\TGA\first cat\PDF\T383  ( Name_    Fe3O4 @ C ) (METTLER)_multipage.tif** |
| **CCMNPs** (a) |
|  |
| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\TGA\TGA-DTG_multipage.tif** |
| **BCCMNPs-VI** (b). |
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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\version 7\polycyclic aromatic compounds\revised\new spect\DSC\32137\32137-1_multipage.tif** |
| (c) |

**Figure S5**. VSM analysis of **CCMNPs** (a); **BCCMNPs-VI** (b); and the reclaimable **BCCMNPs-VI** after nine runs (c) at room temperature.

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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\vsm\Fe3O4@C\VSM.tif** |
| **CCMNPs** (a); |
|  |
| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\version 3\readed new data\vsm recovered\VSM.bmp** |
| **BCCMNPs-VI** (b); |
|  |
| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\version 7\polycyclic aromatic compounds\revised\new spect\VSM.tif** |
| the reclaimable **BCCMNPs-VI** after nine runs (c) |

**Figure S6.** EDX analysis of **BCCMNPs-VI**.

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**Figure S7.** SEM image of **CCMNPs** (a); and **BCCMNPs-VI** (b).

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| **CCMNPs** (a) | |
|  |  |
| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\SEM\basic Fe3O4@C\3.jpg** | **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\SEM\basic Fe3O4@C\4.jpg** |
| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\SEM\basic Fe3O4@C\5.jpg** | **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\exp. result\cat\SEM\basic Fe3O4@C\6.jpg** |
| **BCCMNPs-VI** (b) | |

**Figure S8.** TEM image of **BCCMNPs-VI**.

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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\data2\readed\TEM\DP-18.bmp** | **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\data2\readed\TEM\DP-23.bmp** |

**Figure S9. FT-IR spectra of some selected compounds:**

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| **FT-IR spectra of 4d** |
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| **FT-IR spectra of 4f** |
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| **FT-IR spectra of 4i** |
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|  |
| **FT-IR spectra of 4k** |
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|  |
| **FT-IR spectra of 4m** |

**S10. 1H and 13C NMR spectra of some selected compounds:**

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|  |
| **1H NMR of 4a** |
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| **13C NMR of 4a** |
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| **1H NMR of 4b** |
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| **13C NMR of 4b** |
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| **1H NMR of 4c** |
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| **13C NMR of 4c** |
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|  |
| **1H NMR of 4d** |
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|  |
| **13C NMR of 4e** |
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|  |
| **1H NMR of 4f** |
|  |
| **13C NMR of 4f** |
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|  |
| **1H NMR of 4g** |
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|  |
| **1H NMR of 4i** |
| **C:\Users\Soleimani\Desktop\New folder\ghavidel\cnmr1\CNMR 11 .jpg** |
| **13C NMR of 4i** |
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|  |
| **1H NMR of 4j** |
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|  |
| **1H NMR of 4k** |
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| **1H NMR of 4l** |
| **C:\Users\Soleimani\Desktop\New folder\ghavidel\cnmr1\CNMR 19 .jpg** |
| **13C NMR of 4l** |
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| **1H NMR of 4m** |
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| **1H NMR of 4n** |
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|  |
| **1H NMR of 4o** |
|  |
| **13C NMR of 4o** |
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| **1H NMR of 4p** |
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| **1H NMR of 4q** |
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**S11. Mass spectra of some selected compounds:**

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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\data2\mass\1\MASS Spectrum_multipage.tif** |
| **Mass spectra of 4a** |
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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\version 7\polycyclic aromatic compounds\revised\new spect\mass of 13\mass of 4c.tif** |
| **Mass spectra of 4c** |
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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\data2\mass\23\MASS Spectrum_multipage.tif** |
| **Mass spectra of 4d** |
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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\data2\mass\6\6_multipage.tif** |
| **Mass spectra of 4f** |

**S12. CHNS analysis of some selected compounds:**

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| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\version 7\polycyclic aromatic compounds\revised\new spect\chns of 4a.tif** |
| **CHNS analysis of 4a** |
|  |
| **C:\Users\Soleimani\Desktop\Somayeh\student\ghavidel\writing\1\version 7\polycyclic aromatic compounds\revised\new spect\CHNS\CHNS of 4l.tif** |
| **CHNS analysis of 4l** |