Article

The antimicrobial potency of mesoporous silica nanoparticles loaded with *Melissa officinalis* extract

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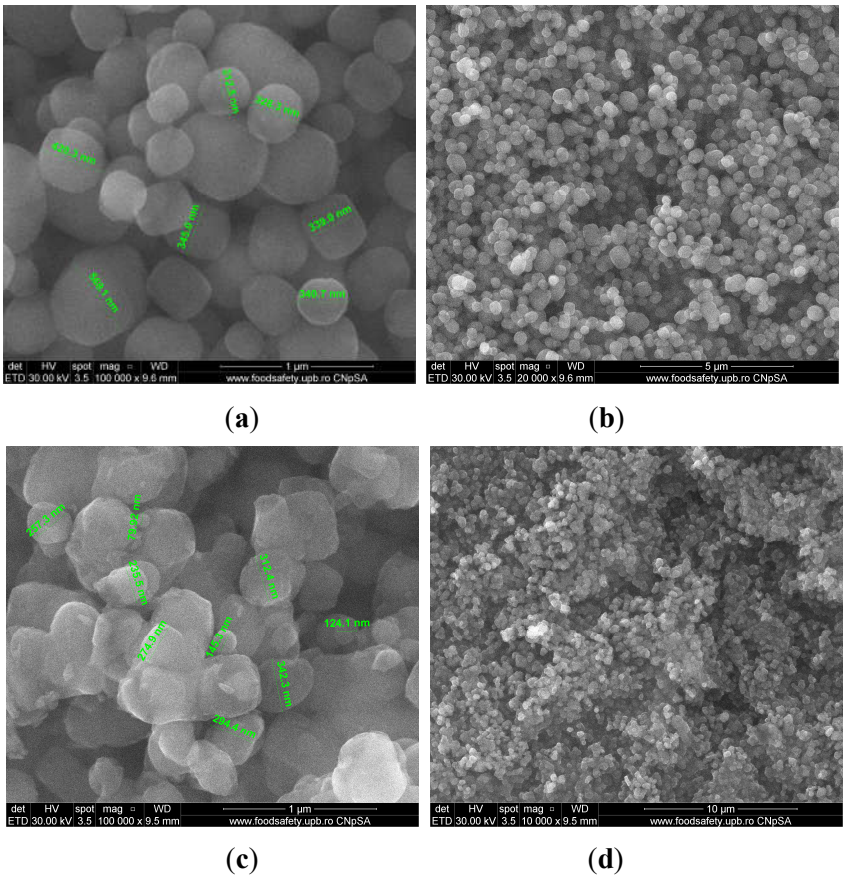


Figure S1. The SEM micrographs of MCM-41 (**a**,**b**); MCM-48 (**c**,**d**).

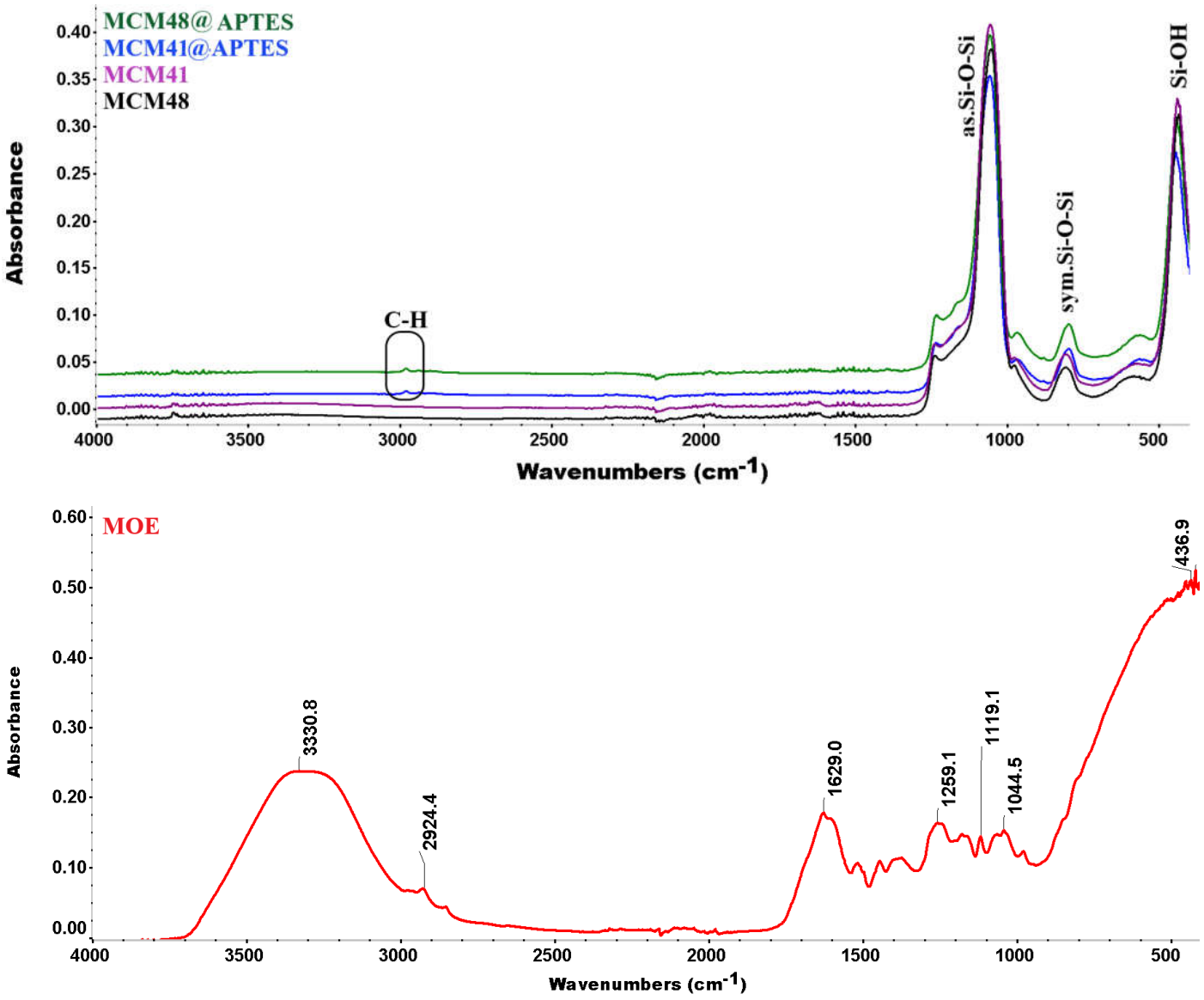
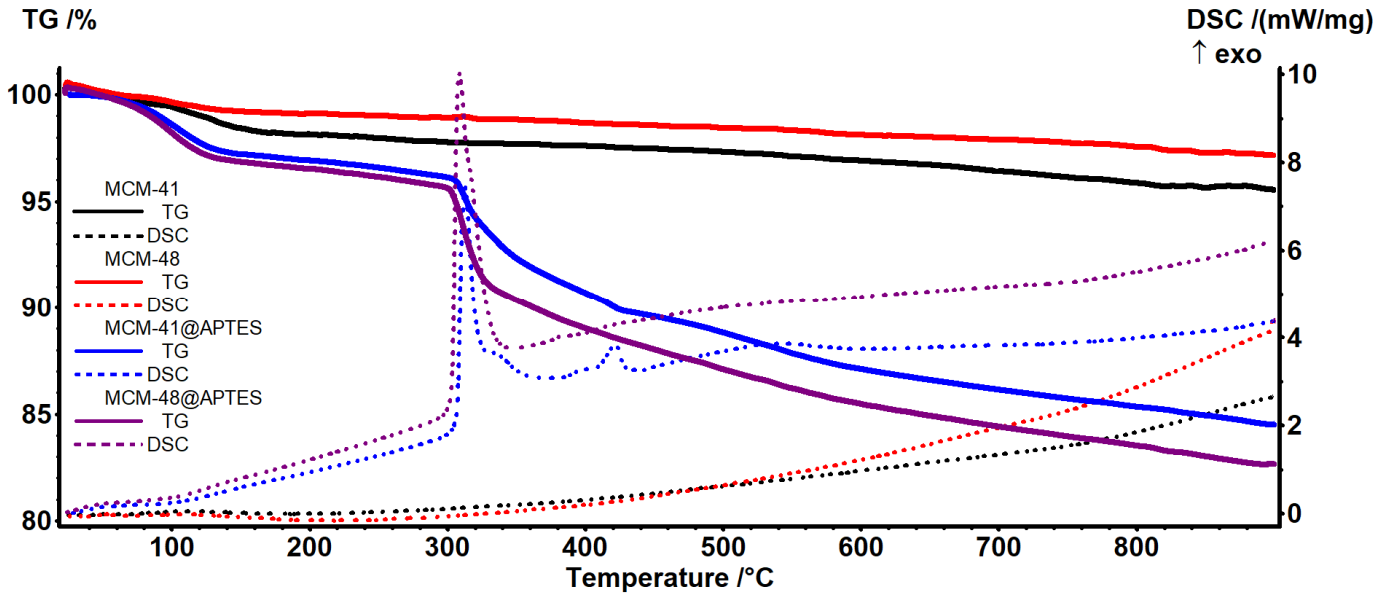
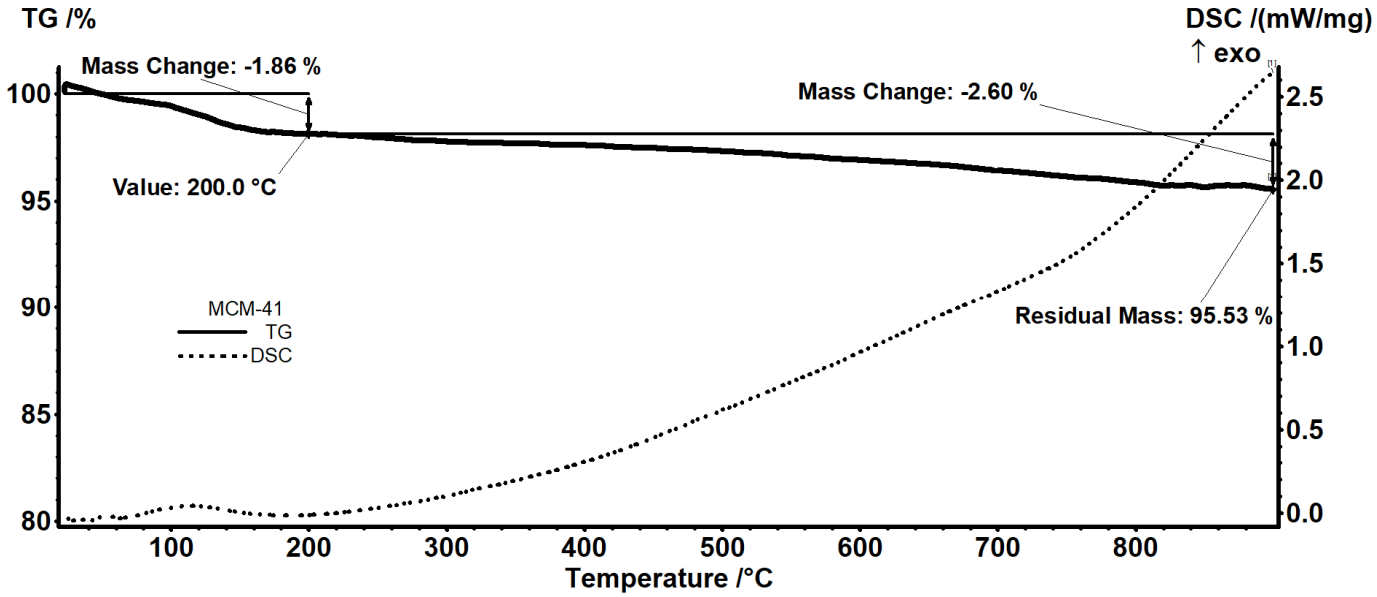
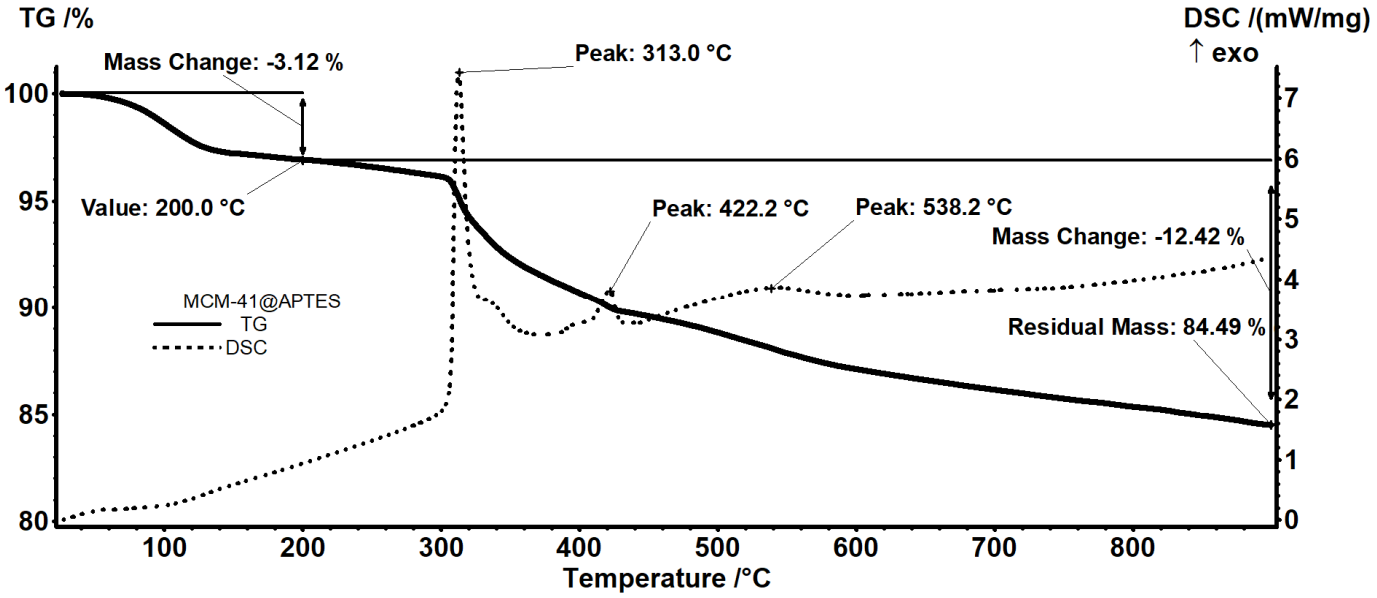
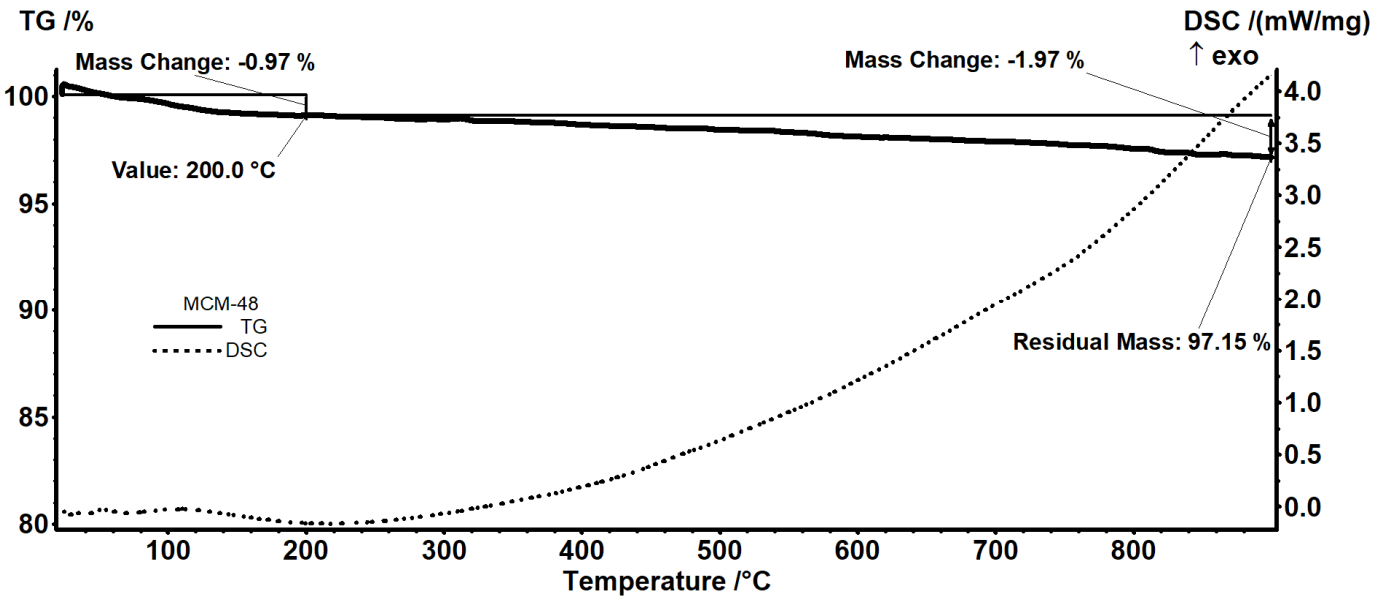


Figure S2. The FTIR spectra for the MCM-41, MCM-48, MCM-41@APTES, MCM-48@APTES particles and *Melissa officinalis* extract (MOE).




TG /%
DSC /(mW/mg)
↑ exo
Mass Change: -1.86 %
Mass Change: -2.60 %
Value: 200.0 °C
MCM-41
TG
DSC
Residual Mass: 95.53 %
100
95
90
85
80
2.5
2.0
1.5
1.0
0.5
0.0
100
200
300
400
500
600
700
800
Temperature /°C


TG /%
DSC /(mW/mg)
↑ exo
Mass Change: -3.12 %
Peak: 313.0 °C
Value: 200.0 °C
Peak: 422.2 °C
Peak: 538.2 °C
Mass Change: -12.42 %
MCM-41@APTES
TG
DSC
Residual Mass: 84.49 %
100
95
90
85
80
7
6
5
4
3
2
1
0
100
200
300
400
500
600
700
800
Temperature /°C


TG /%
DSC /(mW/mg)
↑ exo
Mass Change: -0.97 %
Mass Change: -1.97 %
Value: 200.0 °C
MCM-48
TG
DSC
Residual Mass: 97.15 %
100
95
90
85
80
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
100
200
300
400
500
600
700
800
Temperature /°C

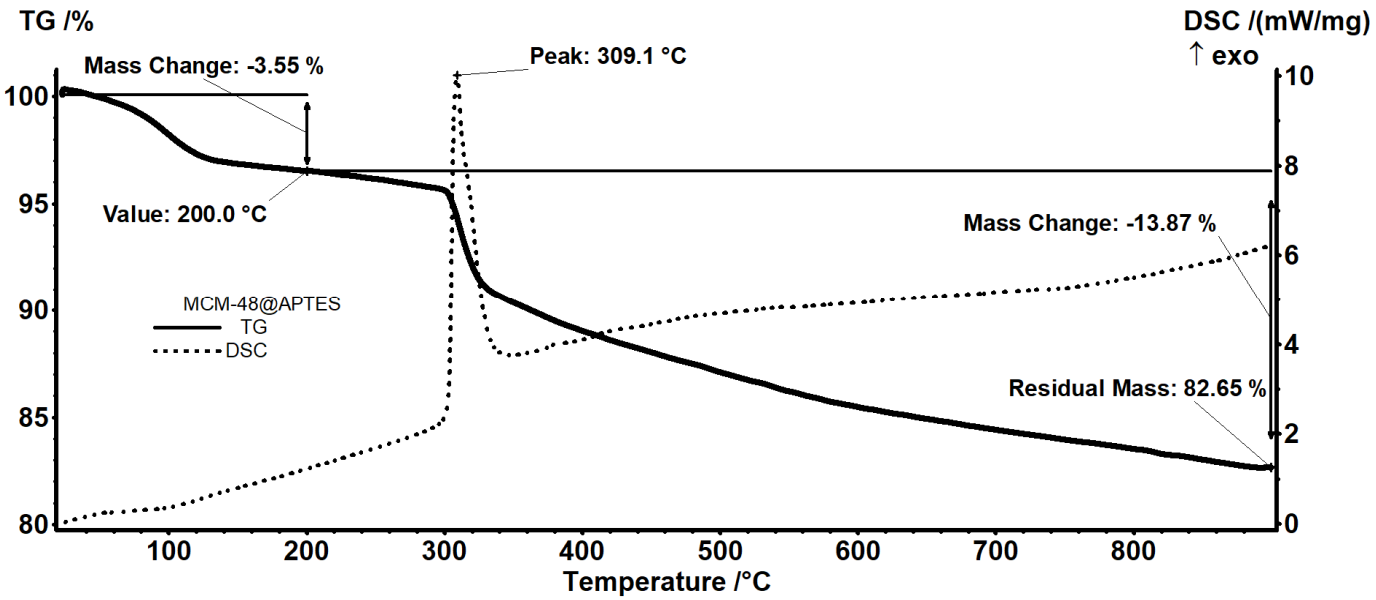


Figure S3. The TG –DSC curves for the MCM-41, MCM-48, MCM-41@APTES and MCM-48@APTES.