Electronic supporting information for article:

Control of Dielectric, Mechanical, and Thermal Properties of a Polymer Composite Based on ABS Using CoB Nanoparticles

Artur Khannanov [1,*], BAnastasia Burmatova [1], Dinar Balkaev [1], Anastasia Rossova [1], Konstantin Zimin [1], Airat Kiiamov [2], Mikhail Cherosov [2], Ivan Lounev [2] and Marianna Kutyreva [1]

1 A.M. Butlerov Chemical Institute, Kazan Federal University, Kazan 420008, Russia; anaeburmatova@kpfu.ru (A.B.); dinar.balkaev@yandex.ru (D.B.); anastasia.rossova@yandex.ru (A.R.); kostzim@list.ru (K.Z.); mkutyreva@mail.ru (M.K.)

2 Institute of Physics, Kazan Federal University, Kazan 420008, Russia; ajrat.kiyamov@kpfu.ru (A.K.); miacherosov@kpfu.ru (M.C.); lounev75@mail.ru (I.L.)

* Correspondence: arthann@gmail.com

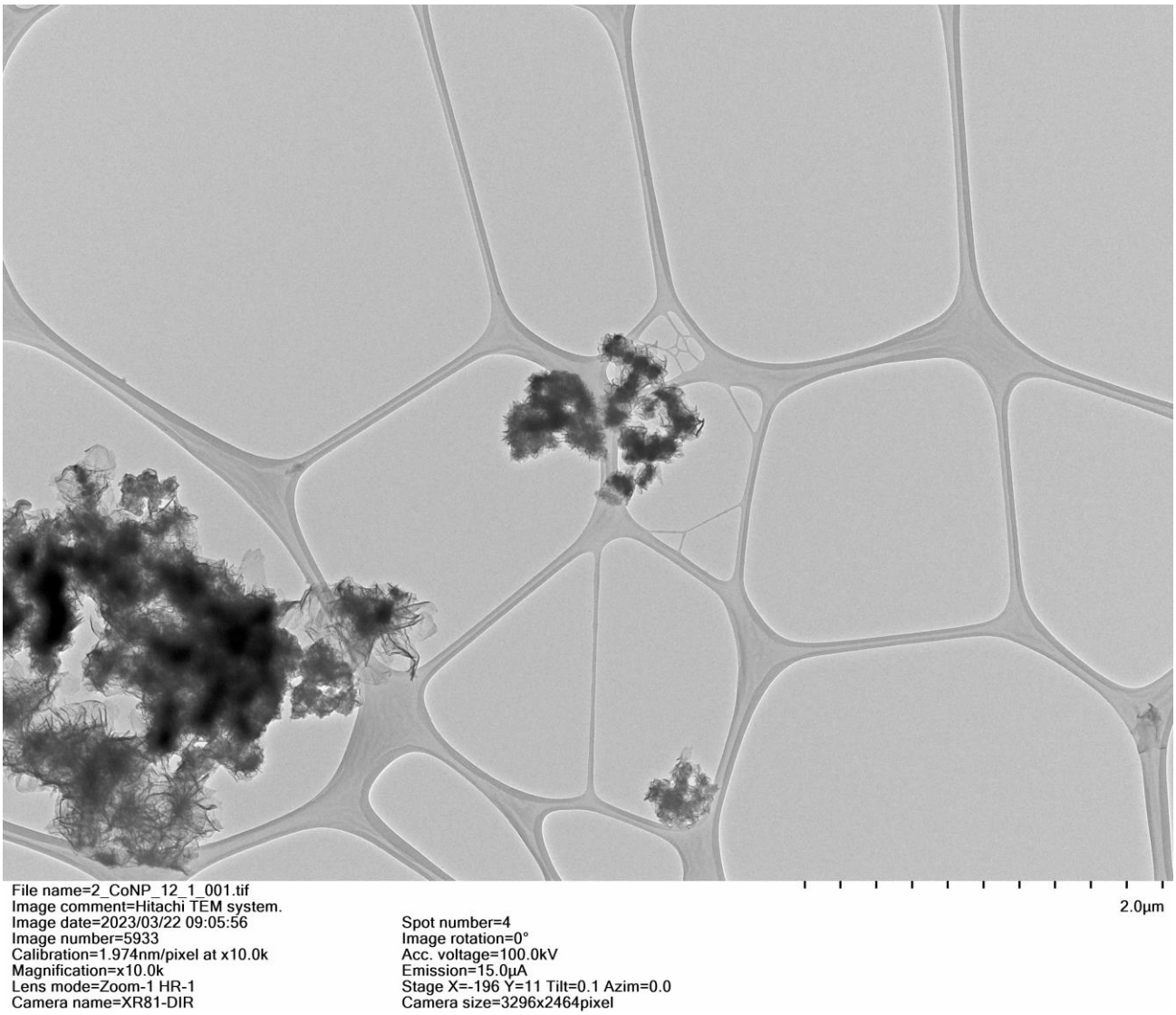


Figure S1. Tem image PEG/CoB-NP

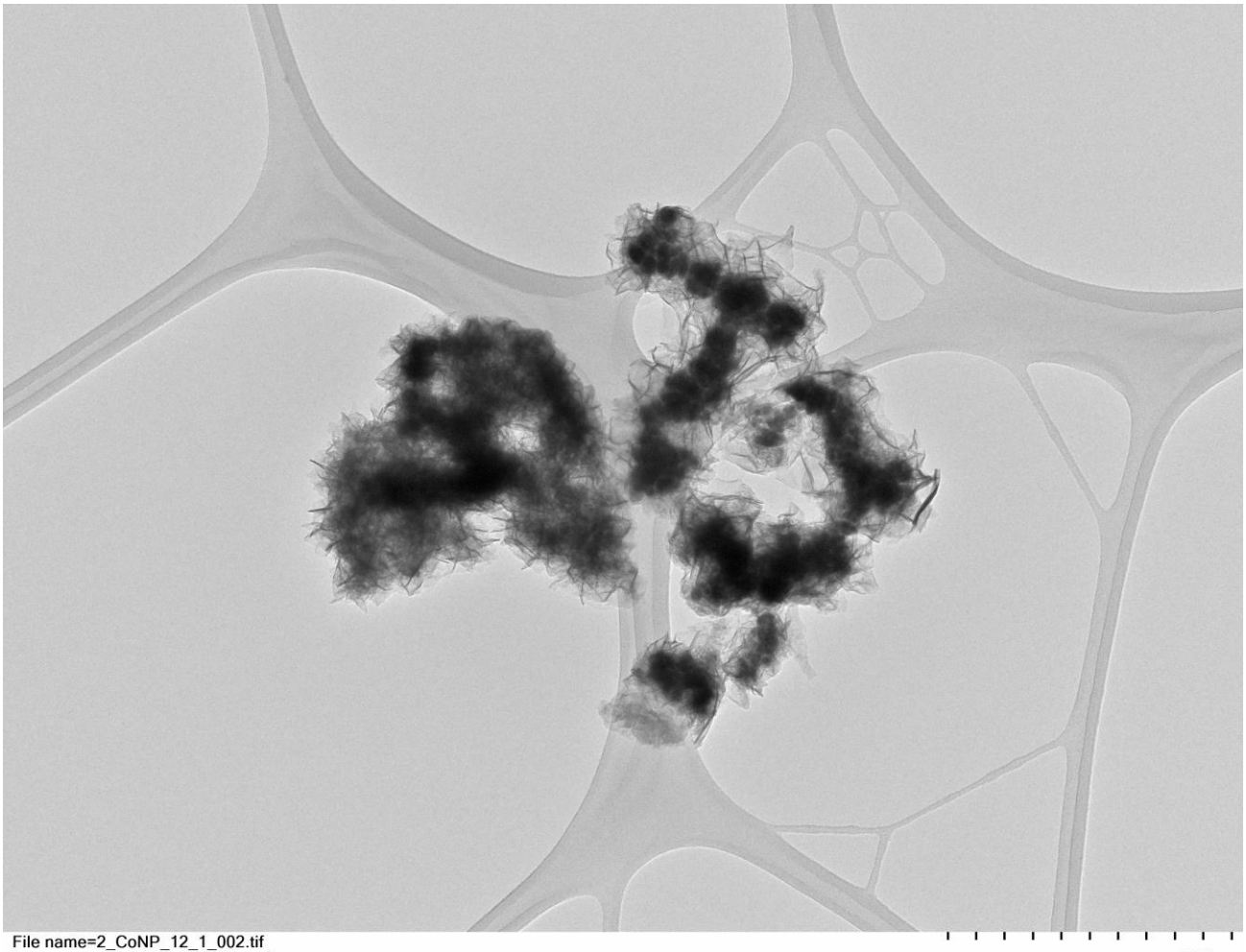


Figure S2. Tem image PEG/CoB-NP

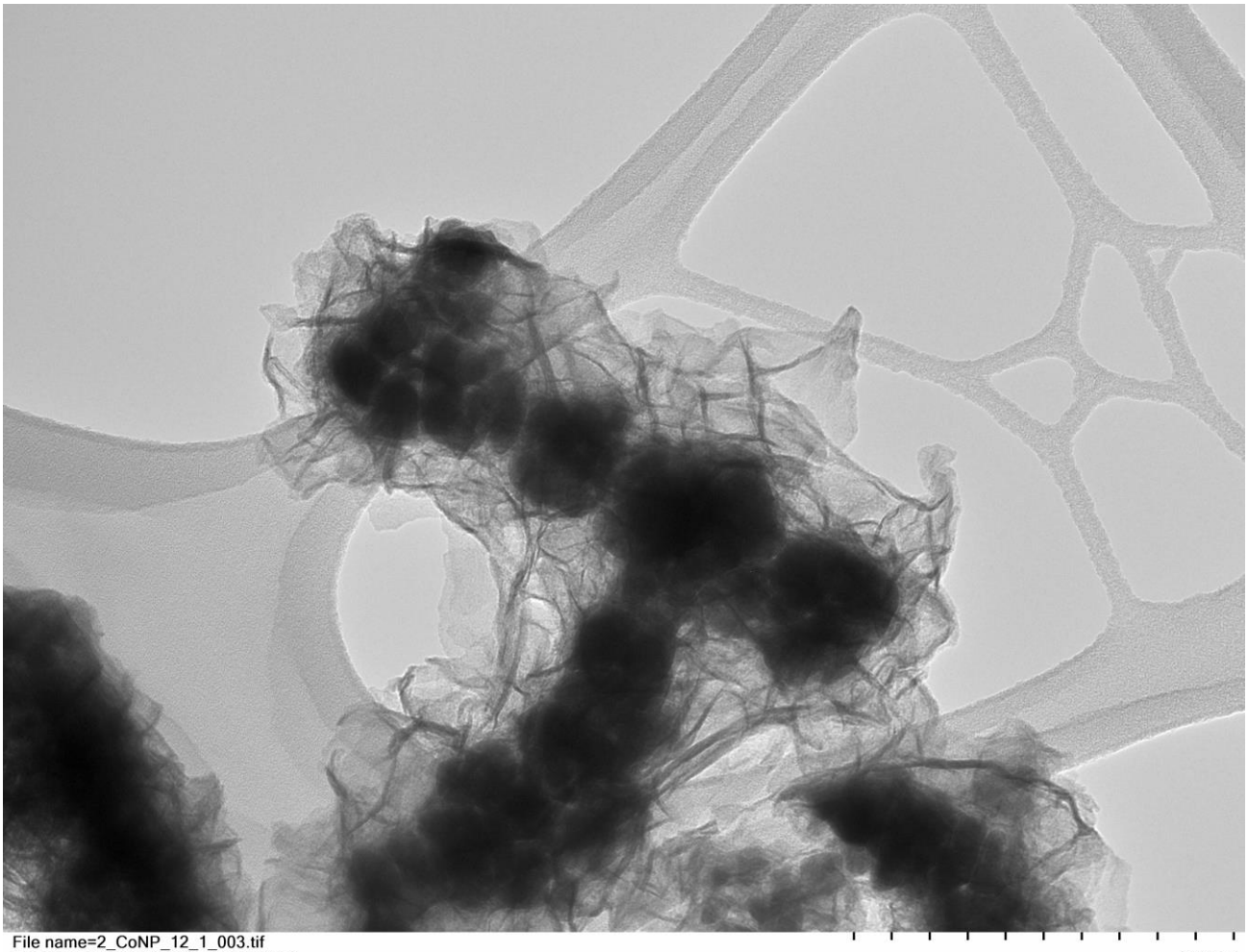


Figure S3. Tem image PEG/CoB-NP

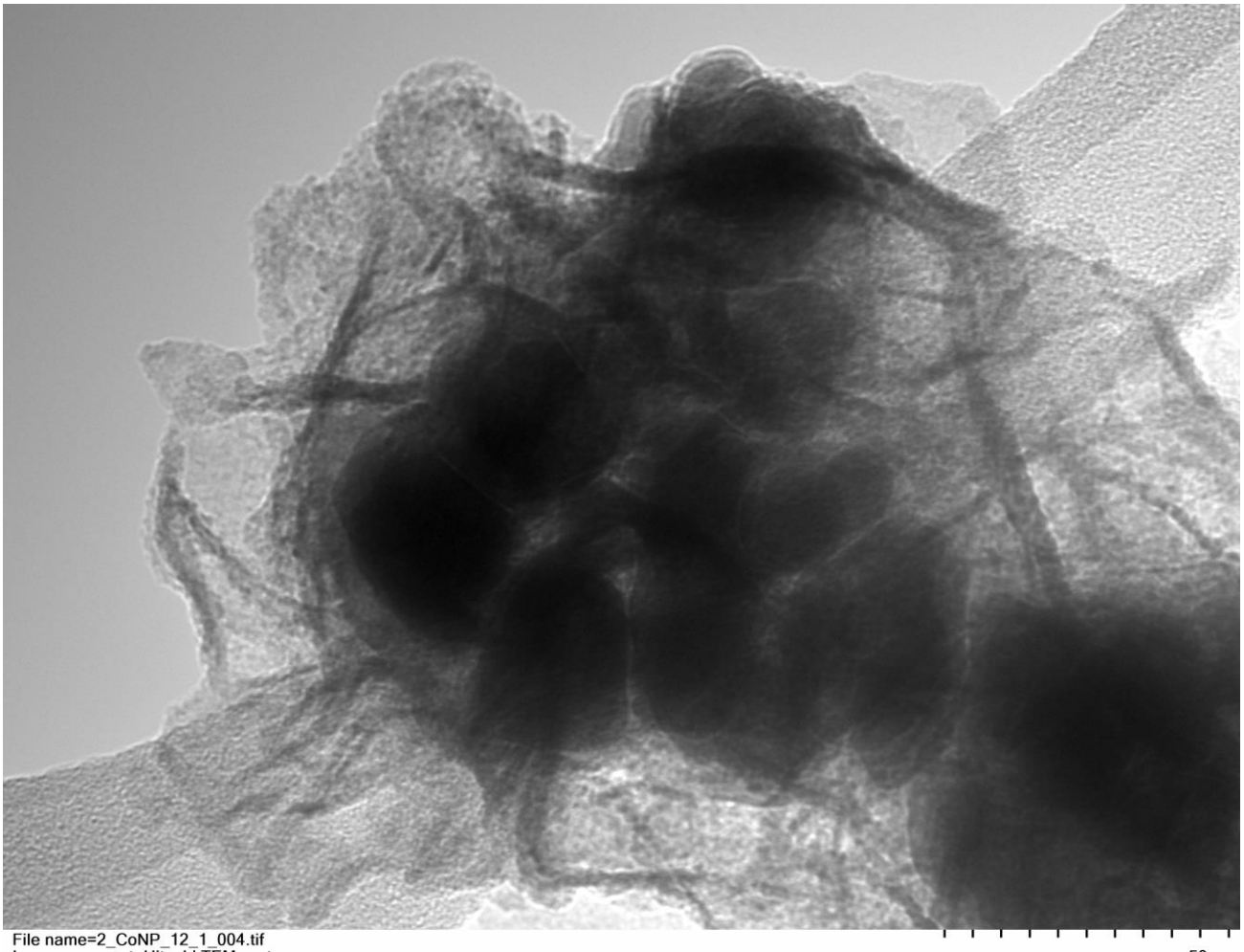
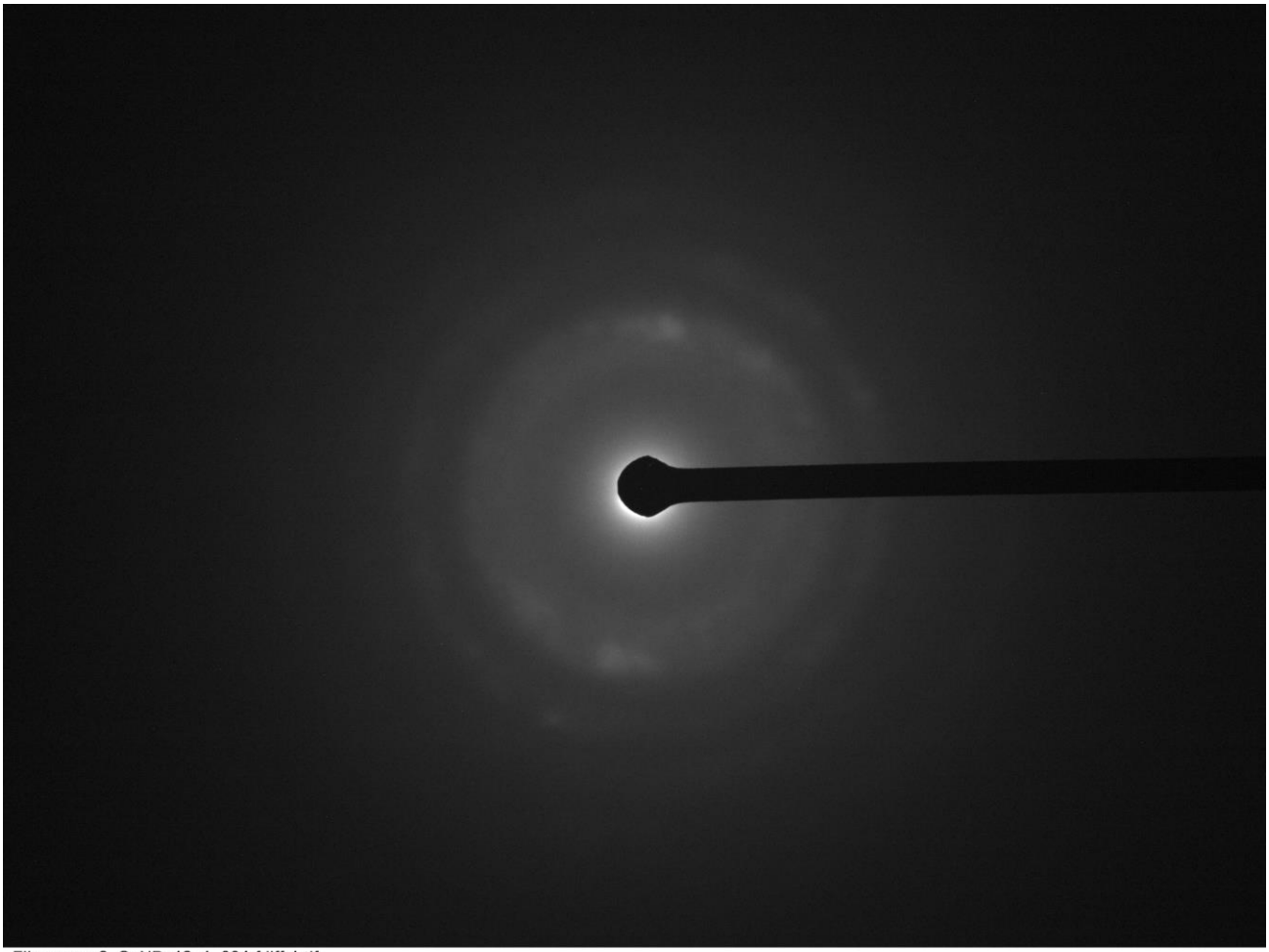


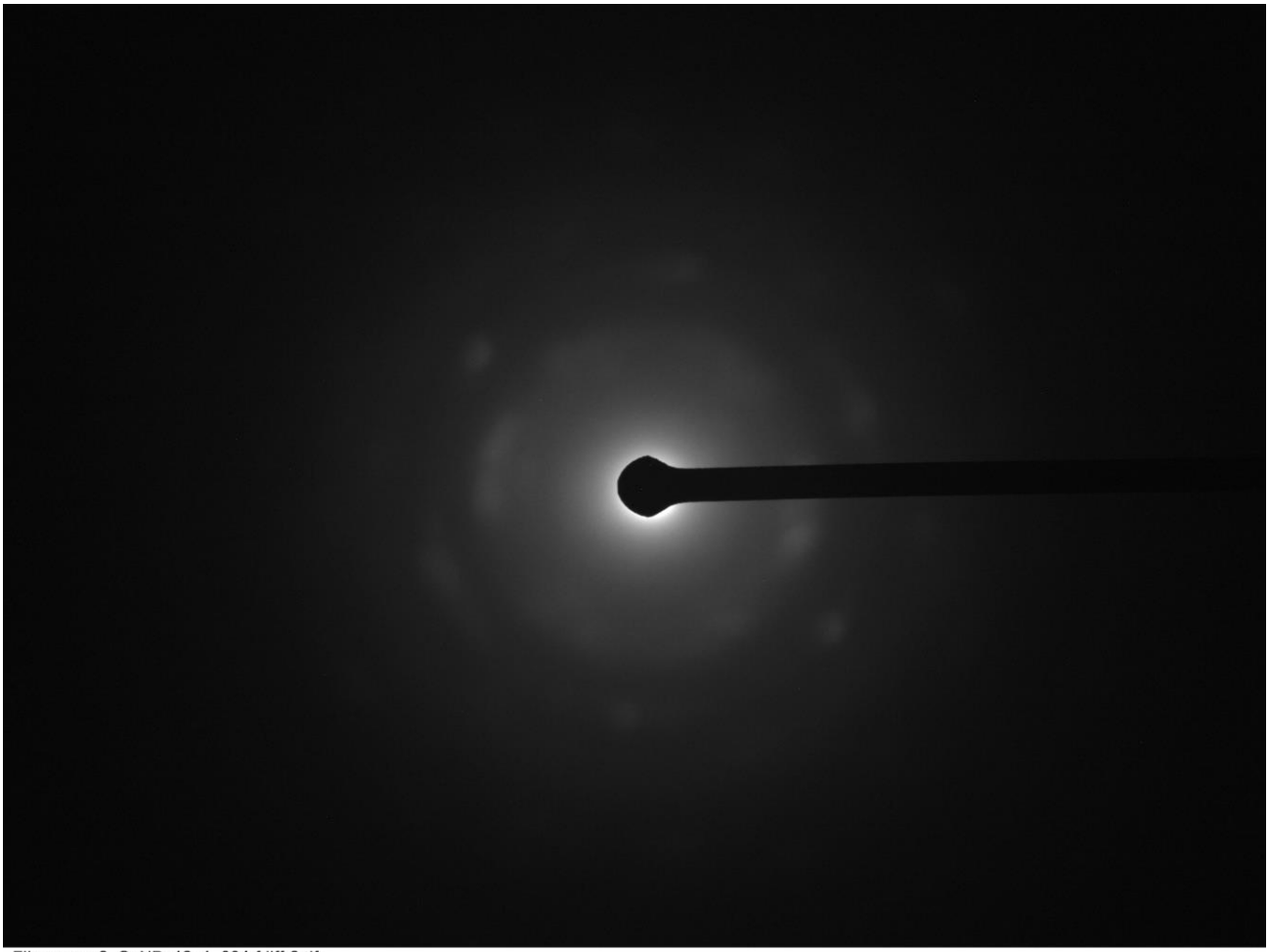
Figure S4. Tem image PEG/CoB-NP



File name=2_CoNP_12_1_004-fdiff-1.tif
Image comment=Hitachi TEM system.
Image date=2023/03/22 09:13:58
Image number=5937
Calibration=1.974nm/pixel at x10.0k
Camera length=0.5m
Lens mode=F-Diff HR
Camera name=XR81-DIR

Spot number=1
Image rotation=0°
Acc. voltage=100.0kV
Emission=15.0μA
Stage X=-196 Y=12 Tilt=0.0 Azim=0.0
Camera size=3296x2464pixel

Figure S5. SAED image PEG/CoB-NP from figure S3



File name=2_CoNP_12_1_004-fdiff-2.tif
Image comment=Hitachi TEM system.
Image date=2023/03/22 09:15:41
Image number=5938
Calibration=1.974nm/pixel at x10.0k
Camera length=0.5m
Lens mode=F-Diff HR
Camera name=XR81-DIR

Spot number=1
Image rotation=0°
Acc. voltage=100.0kV
Emission=15.0μA
Stage X=-196 Y=11 Tilt=0.0 Azim=0.0
Camera size=3296x2464pixel

Figure S6. SAED image PEG/CoB-NP from figure S4

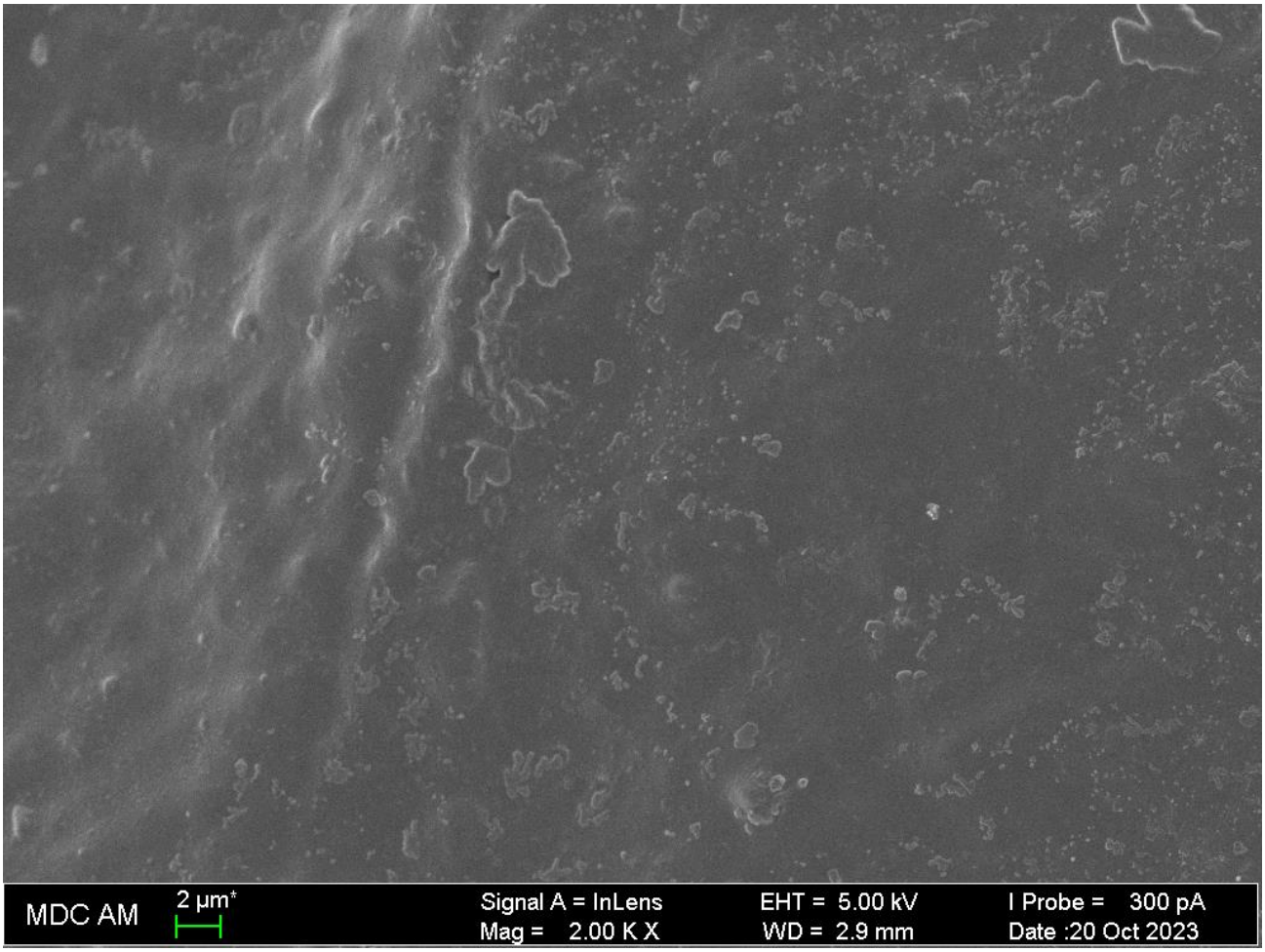


Figure S7. SEM image of ABS/[PEG/CoB-NP] with 0.3% nanoparticle loading

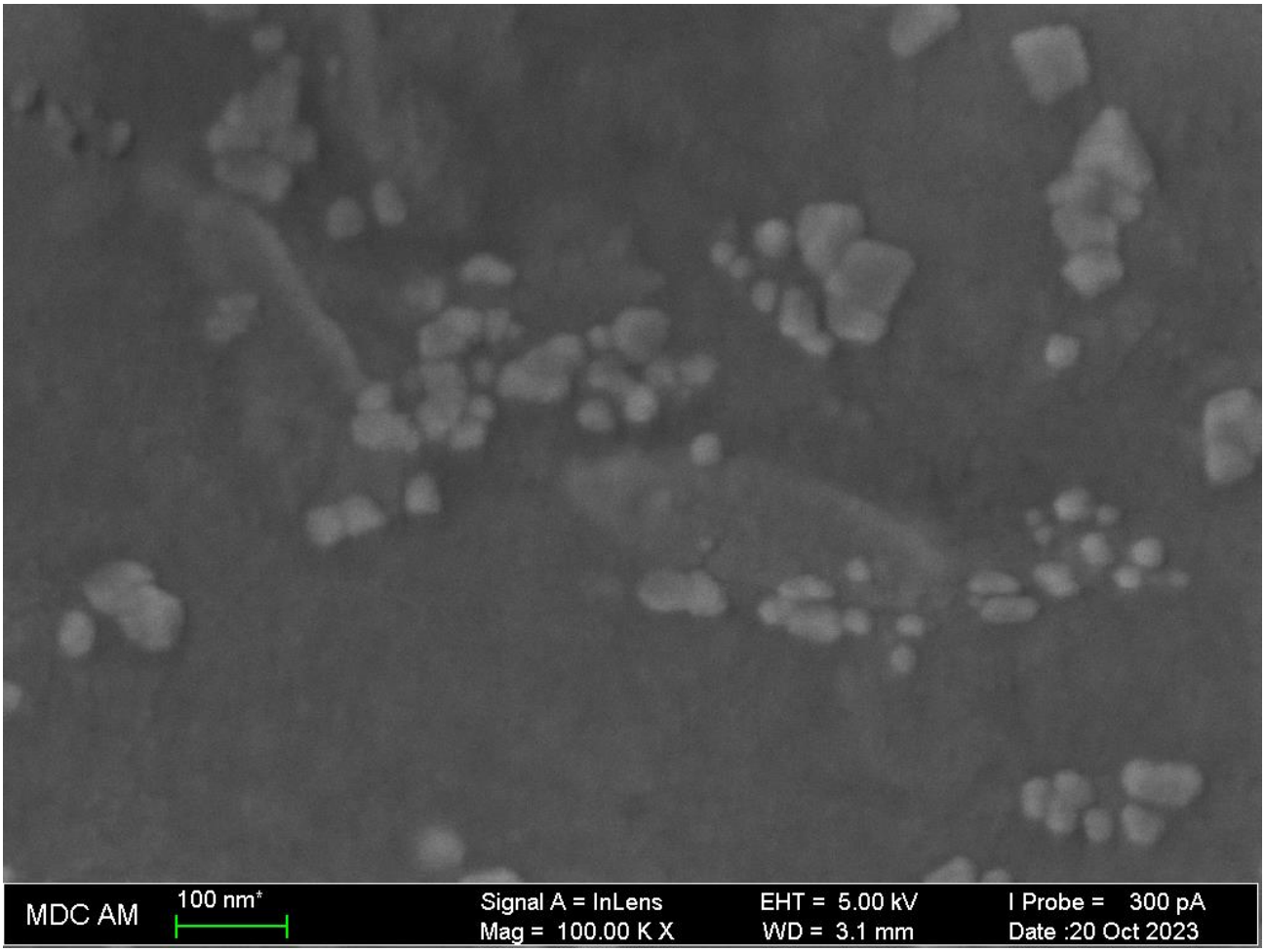


Figure S8. SEM image of ABS/[PEG/CoB-NP] with 0.3% nanoparticle loading

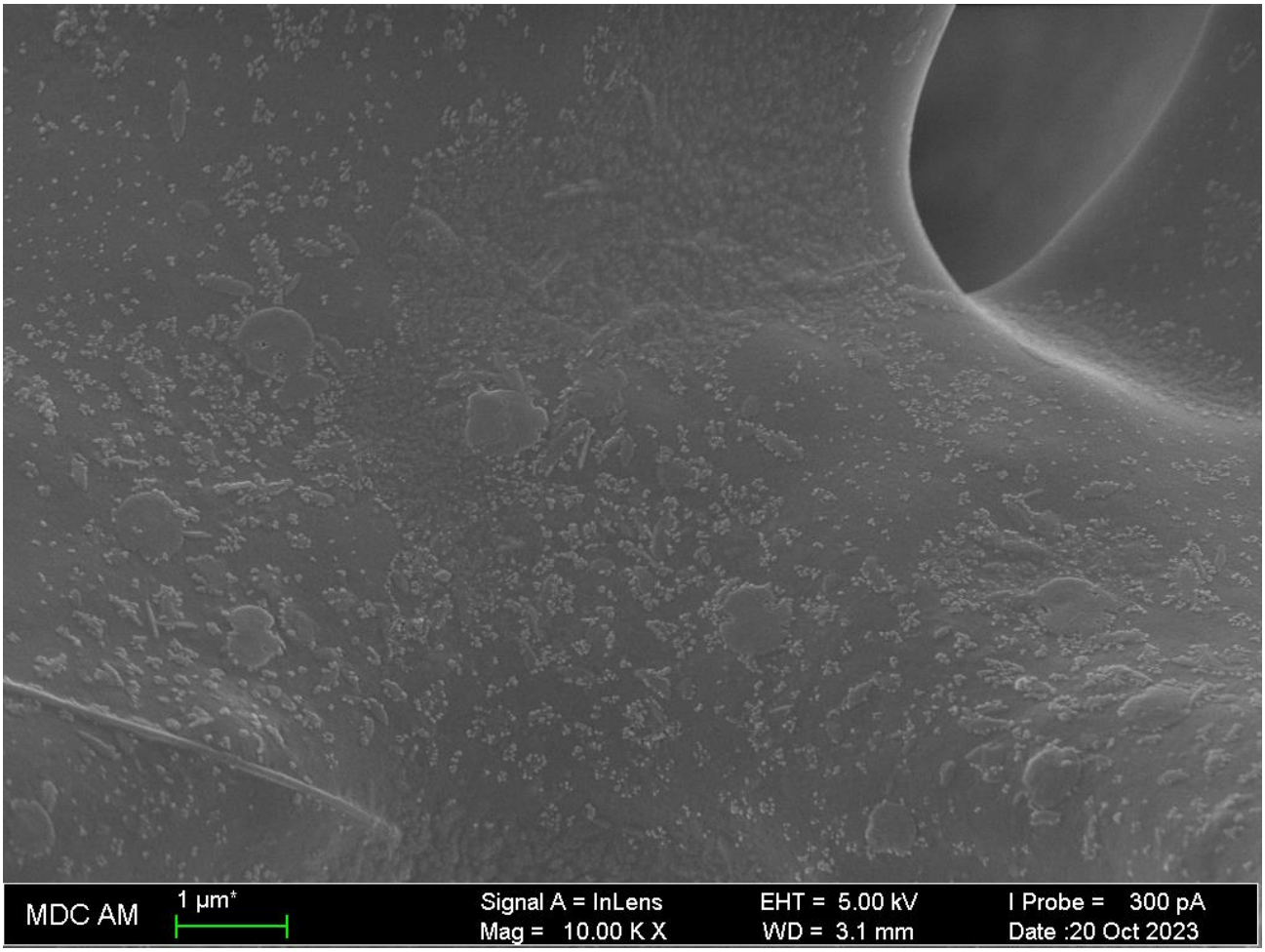


Figure S9. SEM image of ABS/[PEG/CoB-NP] with 1.5% nanoparticle loading

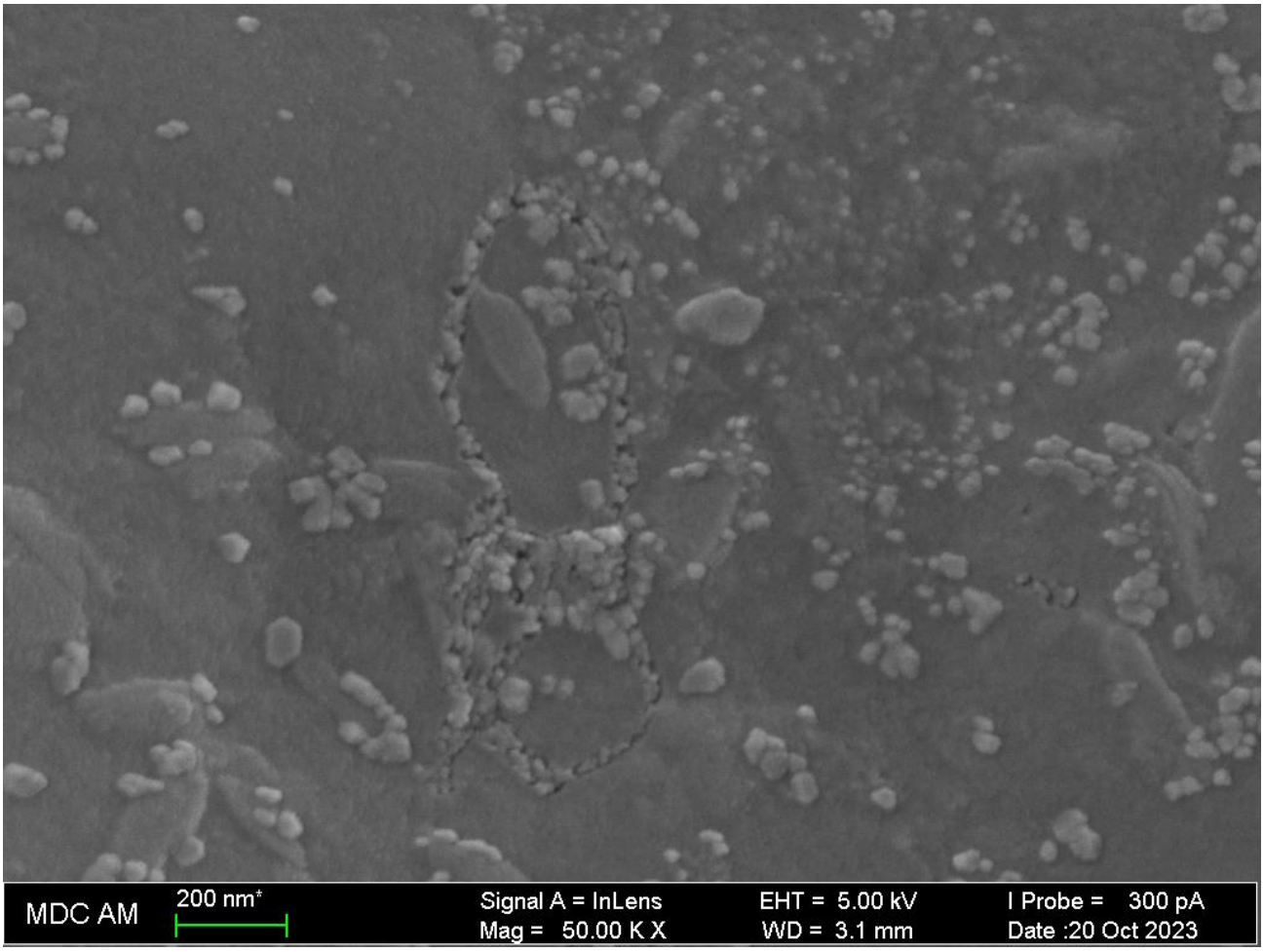


Figure S10. SEM image of ABS/[PEG/CoB-NP] with 1.5% nanoparticle loading

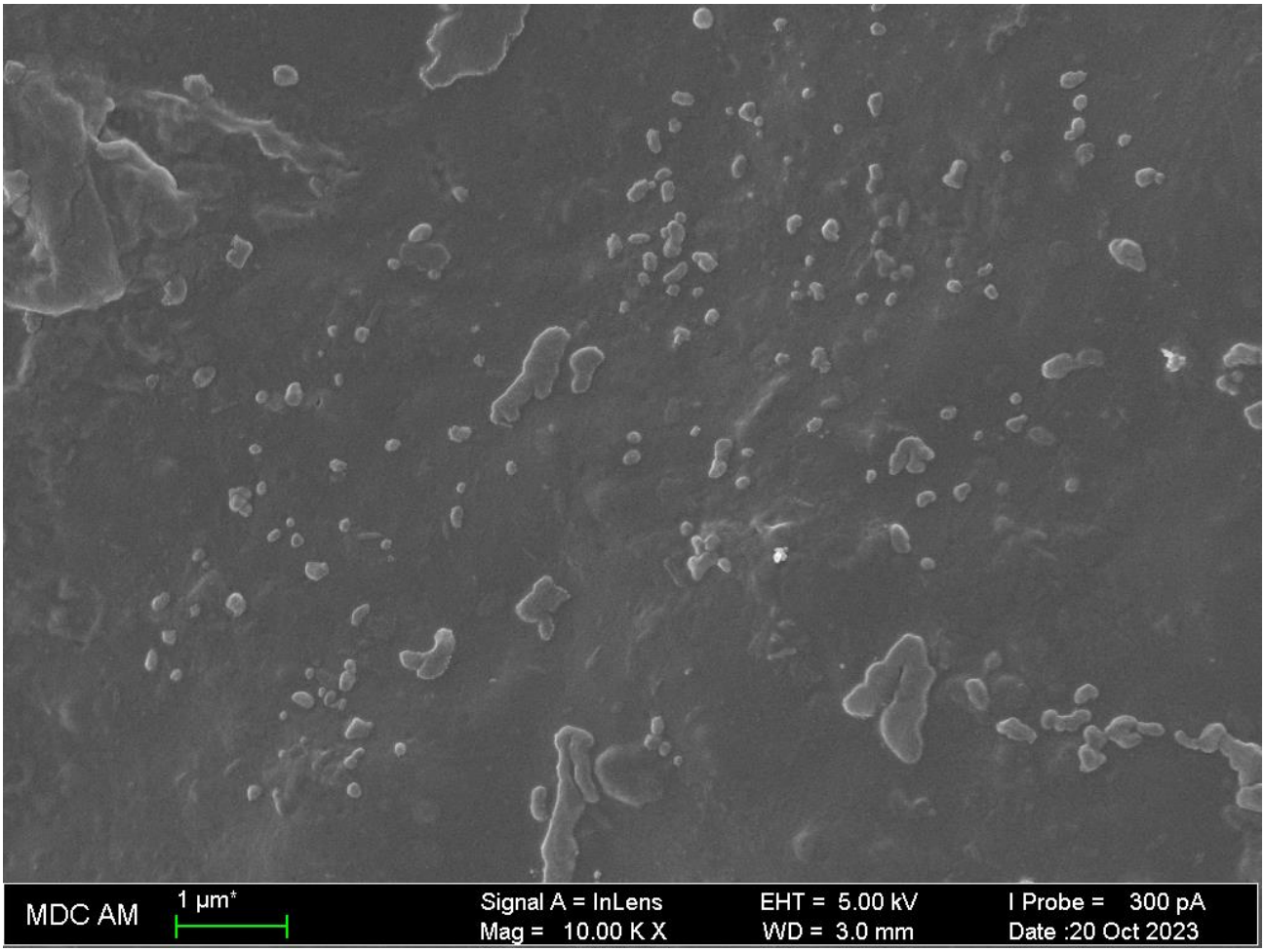


Figure S11. SEM image of ABS/[PEG/CoB-NP] with 3% nanoparticle loading

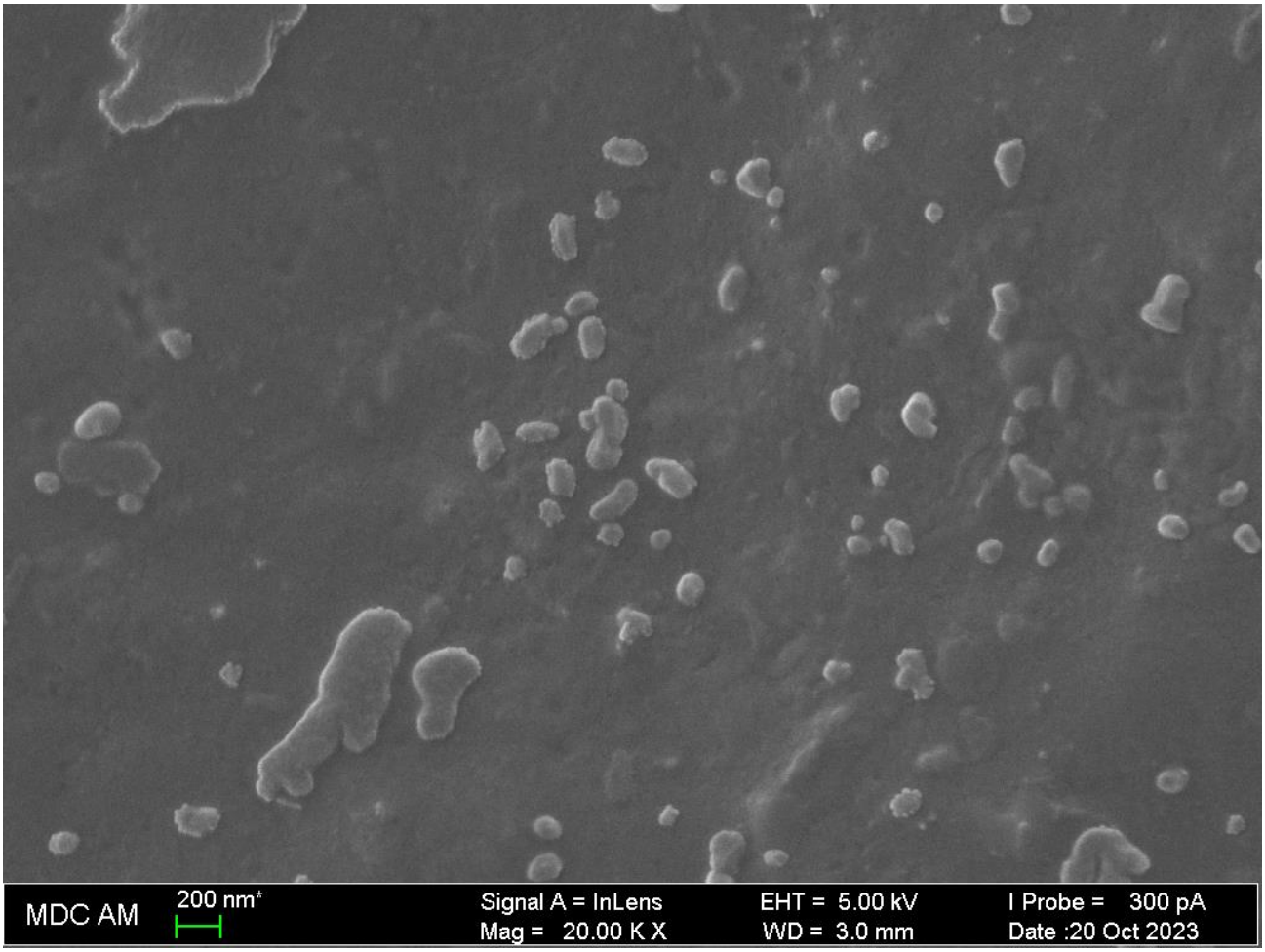


Figure S12. SEM image of ABS/[PEG/CoB-NP] with 3% nanoparticle loading

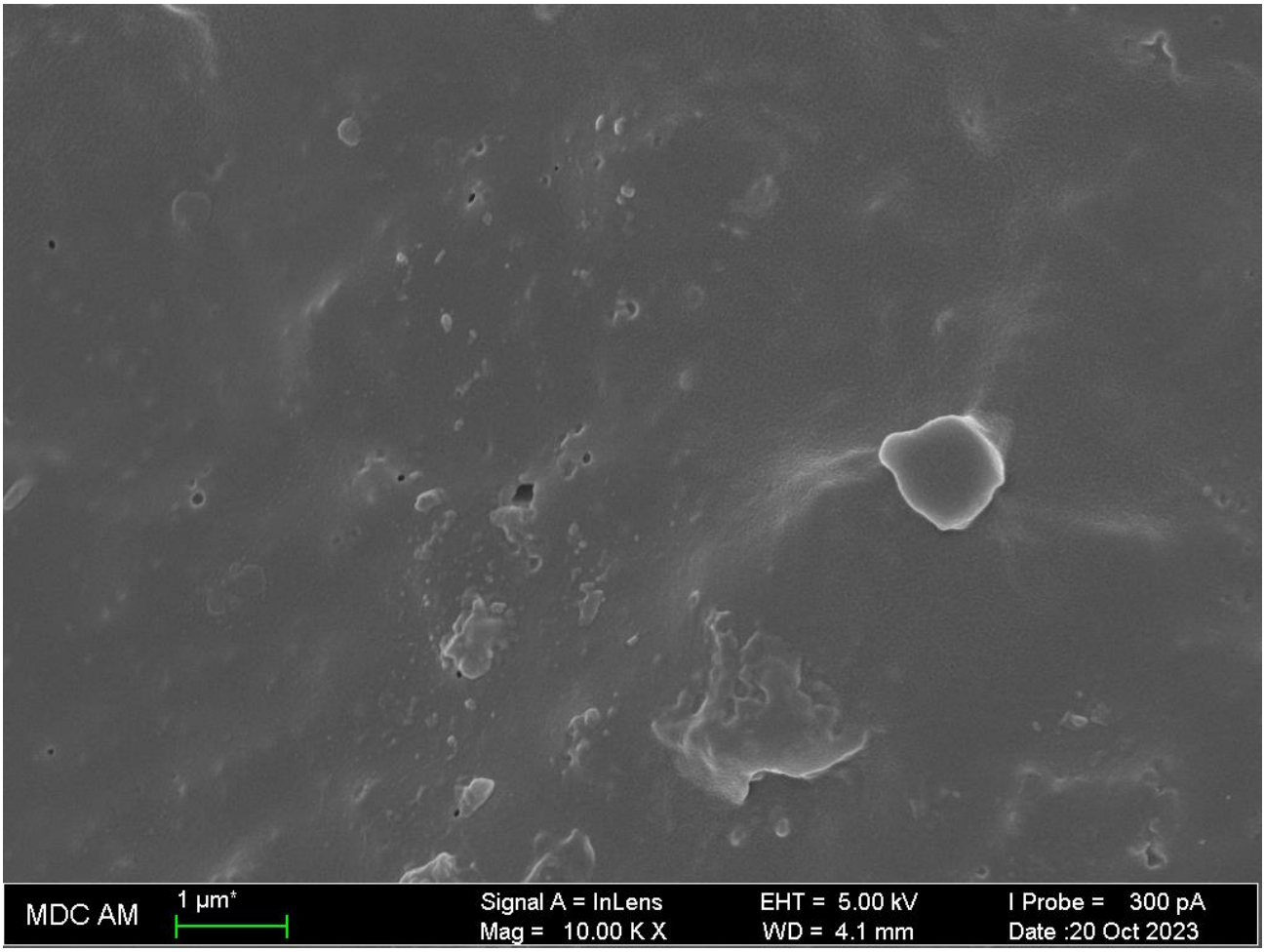


Figure S13. SEM image of ABS/[PEG/CoB-NP] with 6% nanoparticle loading

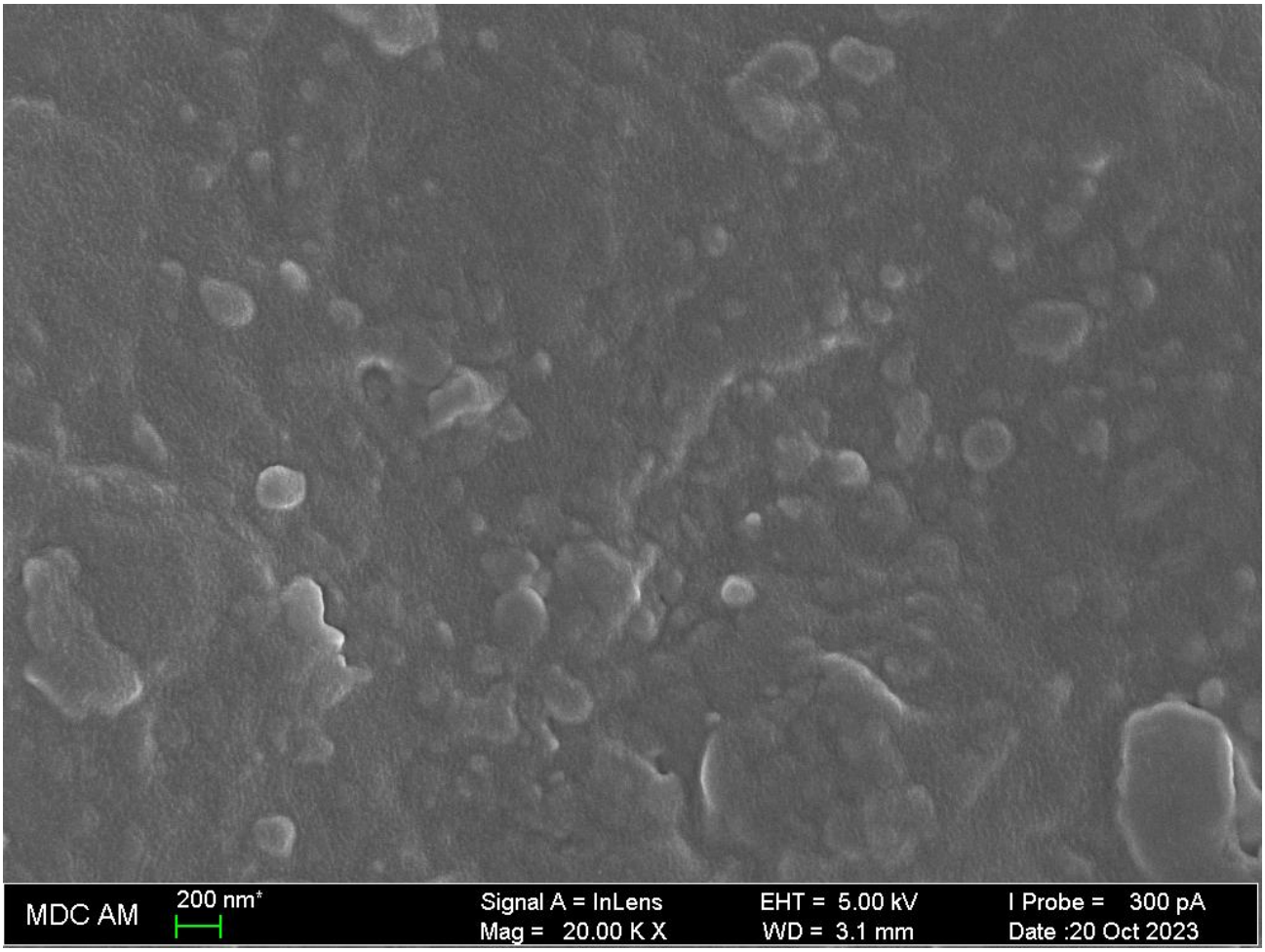


Figure S14. SEM image of ABS/[PEG/CoB-NP] with 6% nanoparticle loading