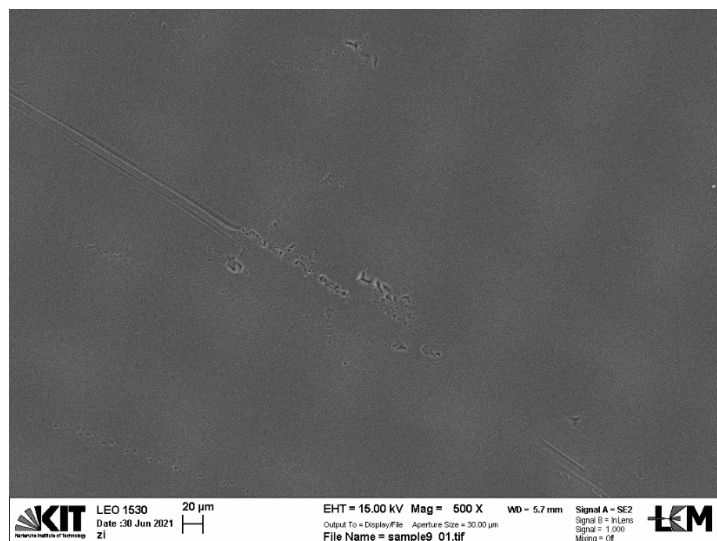


Supplementary materials

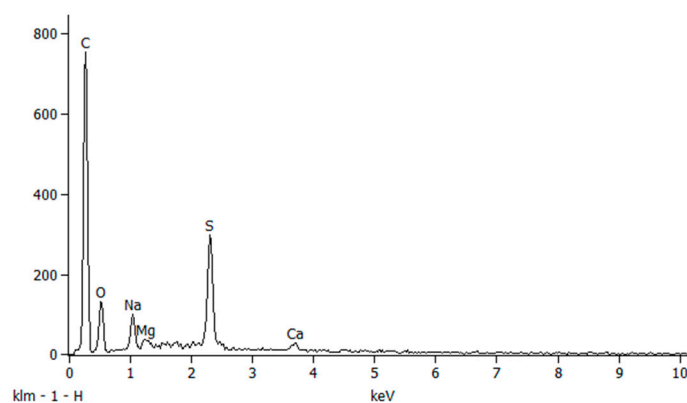
Figure S1: SEM-EDX images of virgin and used membranes

Virgin anion exchange membrane (AEM)



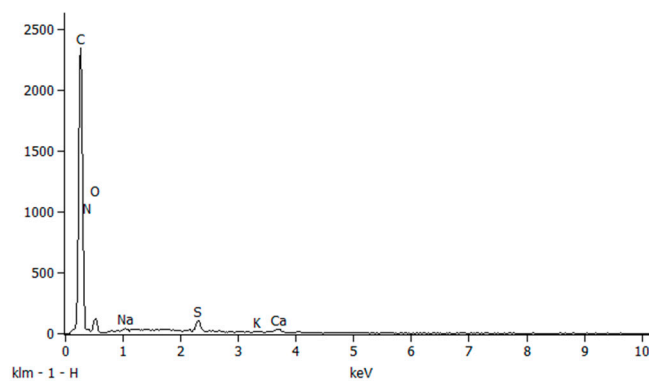
Full scale counts: 752

sample9_01

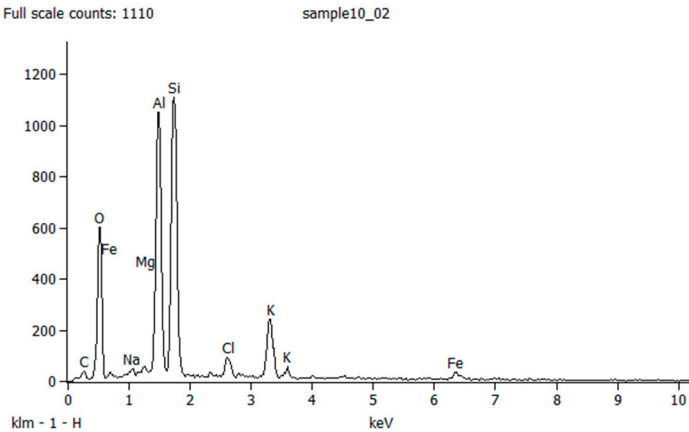
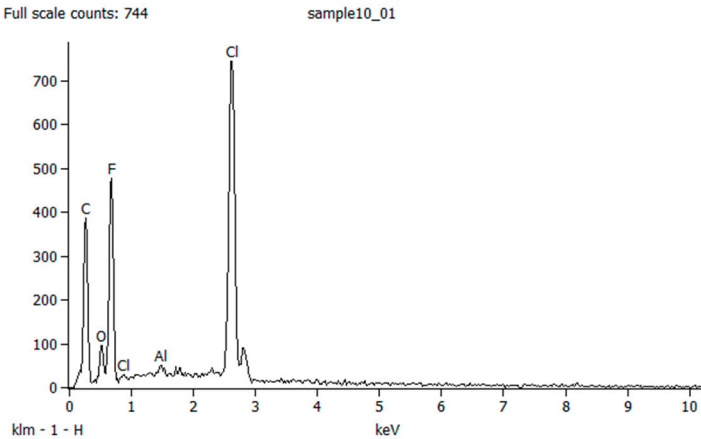
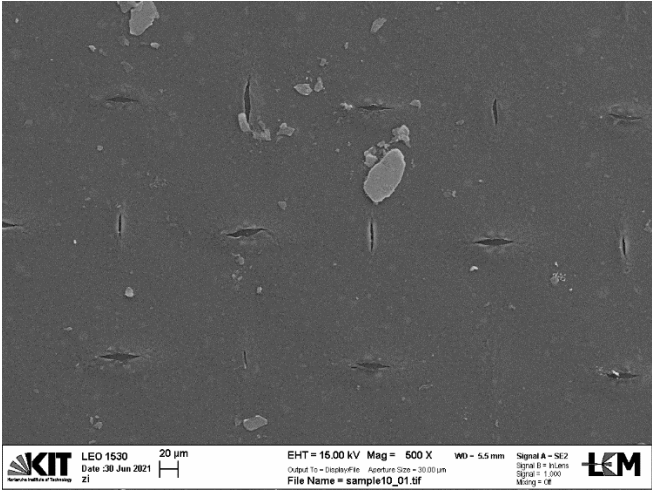


Full scale counts: 2342

sample9_02

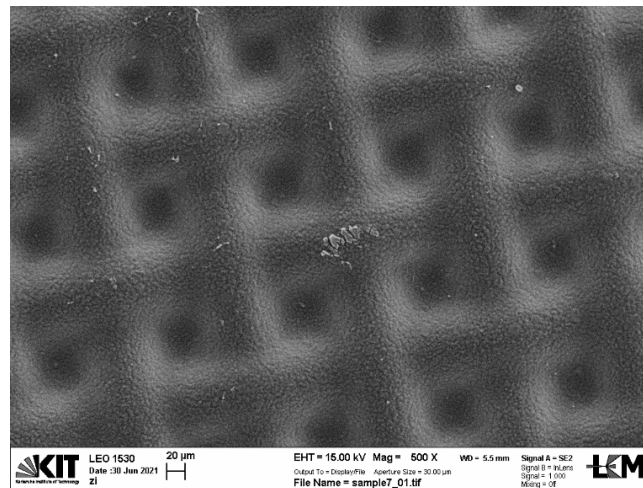


Virgin cation exchange membrane (CEM)



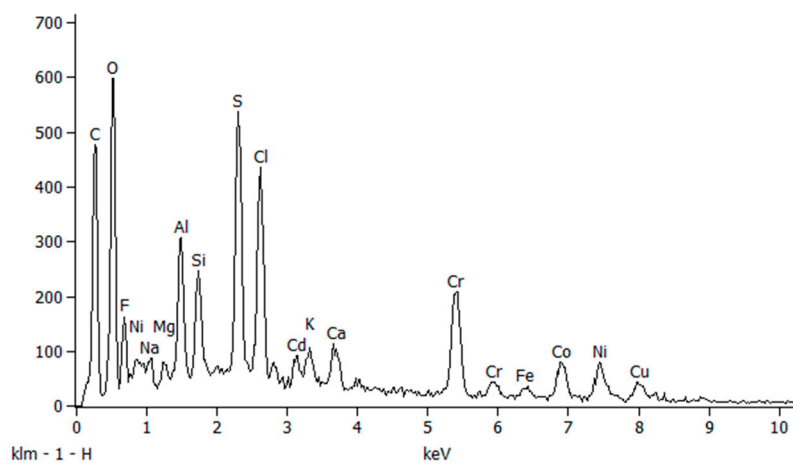
Used Membranes

1. Used AEM+ heavy metal (HM)



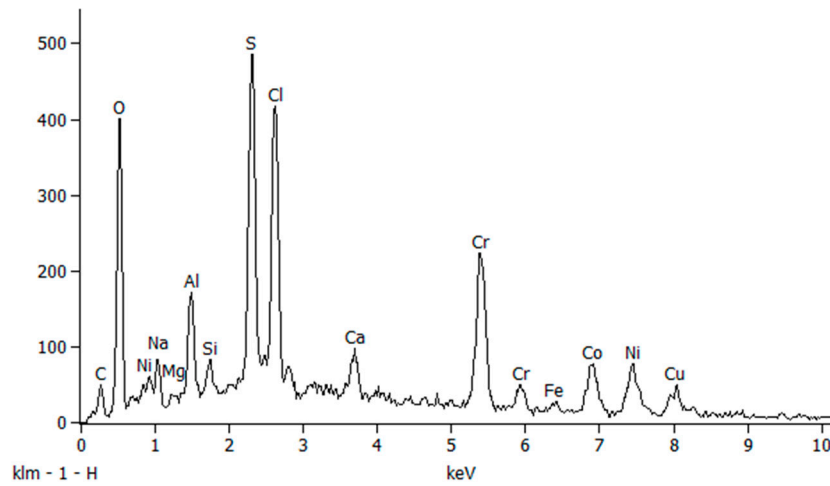
Full scale counts: 597

sample7_01

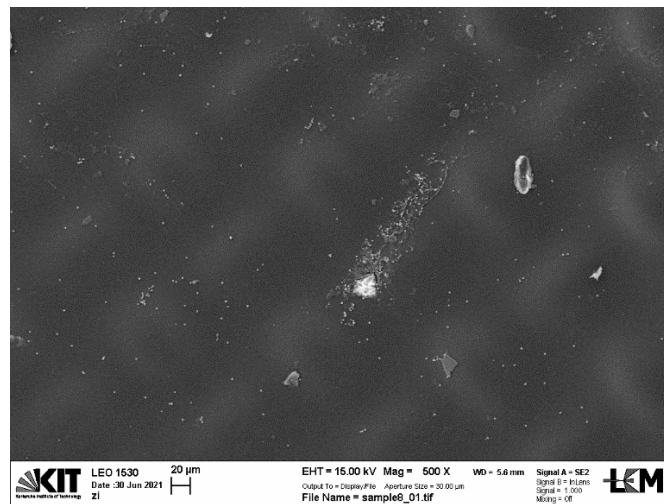


Full scale counts: 485

sample7_02

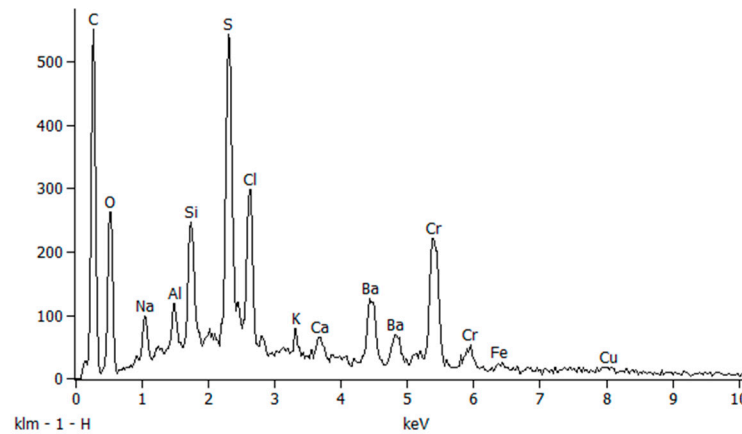


2. Used CEM + heavy metal (HM)



Full scale counts: 551

sample8_01



Full scale counts: 437

sample8_03

