

Electronic Supplementary Information (ESI)

Nickel Nanoparticle Chains Inside Carbonized Polymer Nanofibers: Preparation by Electrospinning and Ion-beam Irradiation

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Supporting figures

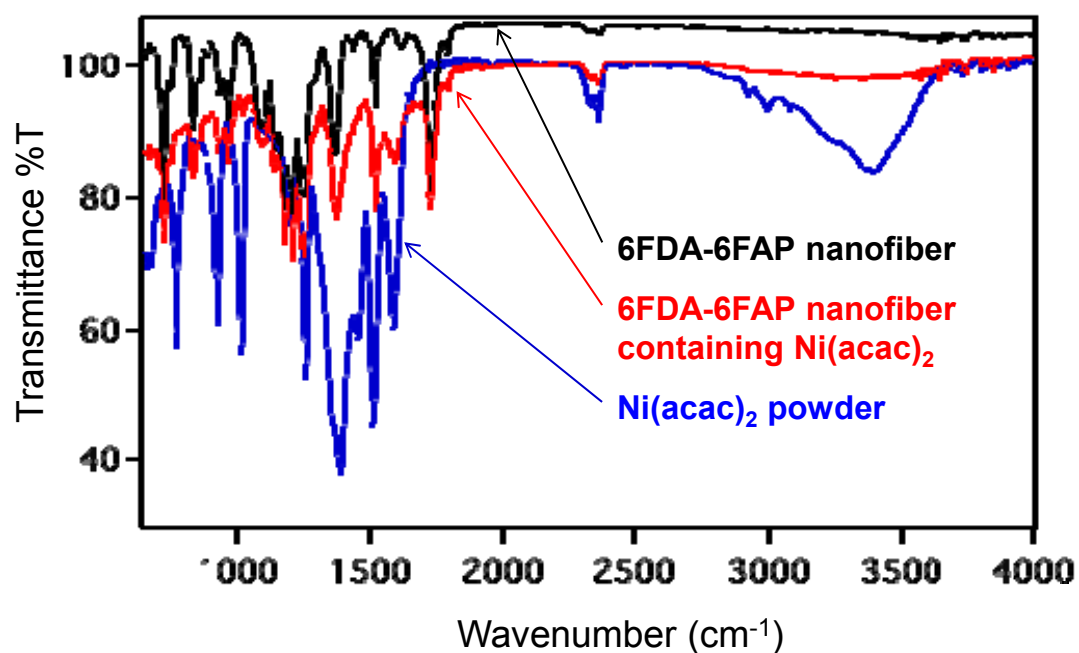


Fig. S1. FT-IR spectrum of 6FDA-6FAP nanofibers, 6FDA-6FAP nanofiber containing Ni(acac)₂, and Ni(acac)₂ powder.

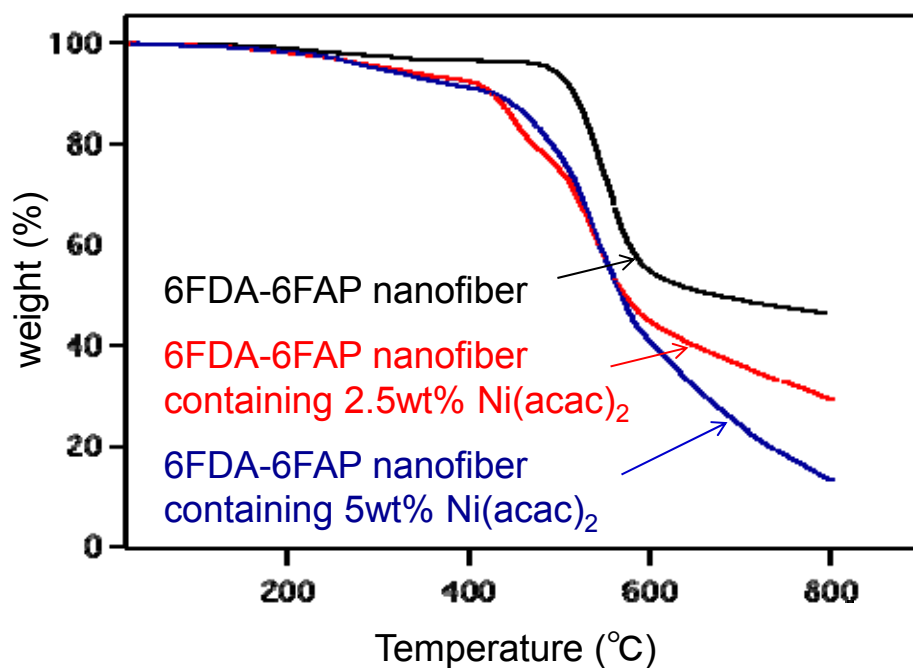


Fig. S2. TGA curve of 6FDA-6FAP nanofibers containing 0, 2.5, and 5wt% Ni(acac)₂.

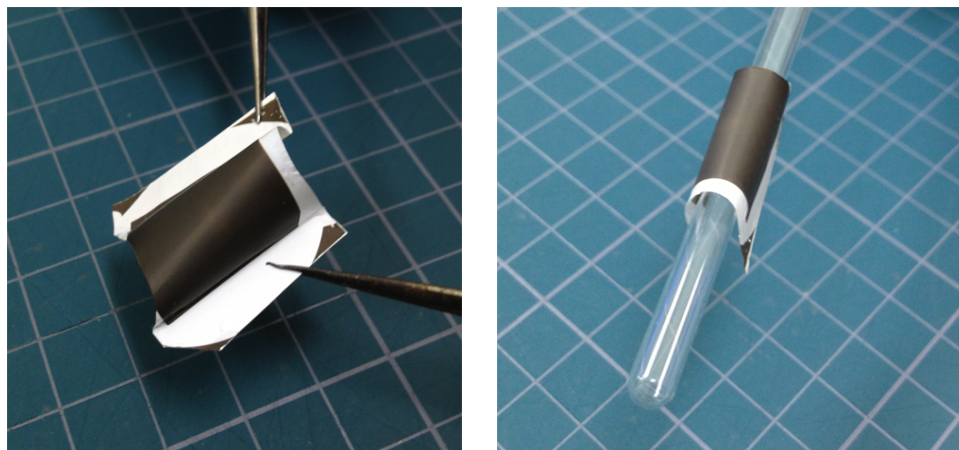


Fig. S3. Optical images of flexible electrospun 6FDA-6FAP nanofibrous membranes containing 5wt% Ni(acac)₂ after ion-beam irradiation.

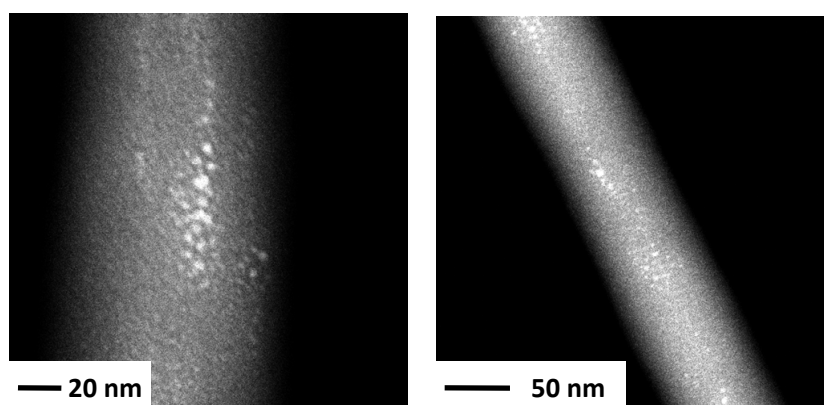


Fig. S4. STEM HAADF images of the ion-beam irradiated nanofibers with 5wt% Ni(acac)₂.

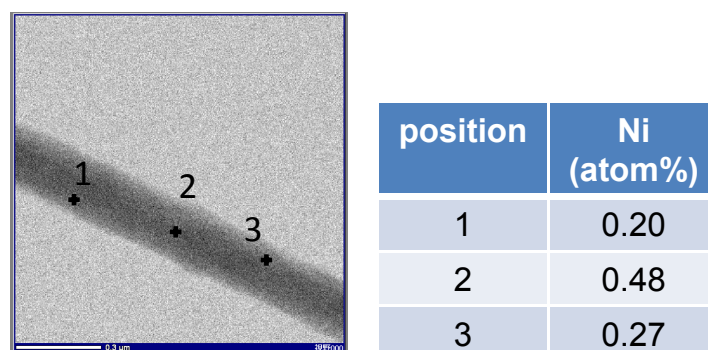


Fig. S5. Nickel contents at three different positions in a 6FDA-6FAP nanofiber containing 5wt% Ni(acac)₂ before ion-beam irradiation measured by EDX spectrometry.

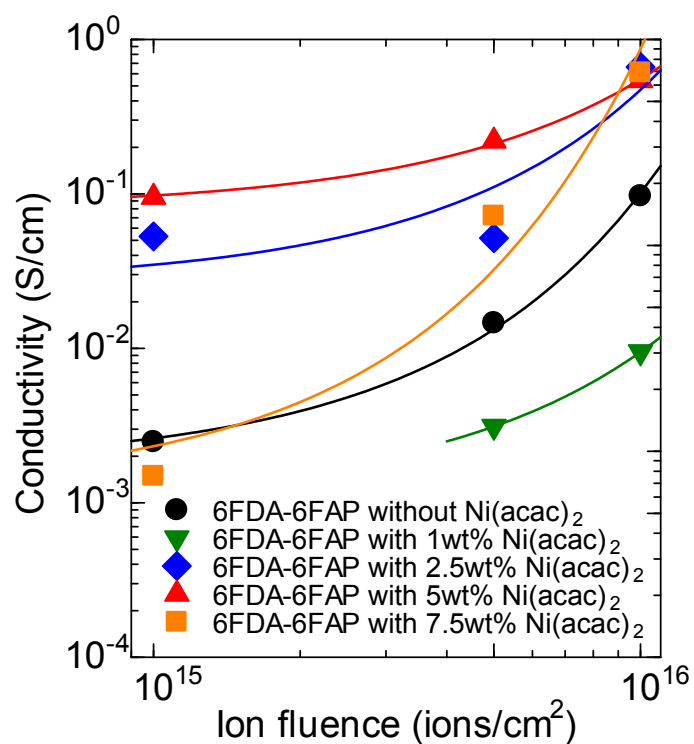


Fig. S6. Electrical conductivities of electrospun 6FDA-6FAP nanofibrous membranes containing various amount of Ni(acac)₂ after ion-beam irradiation.

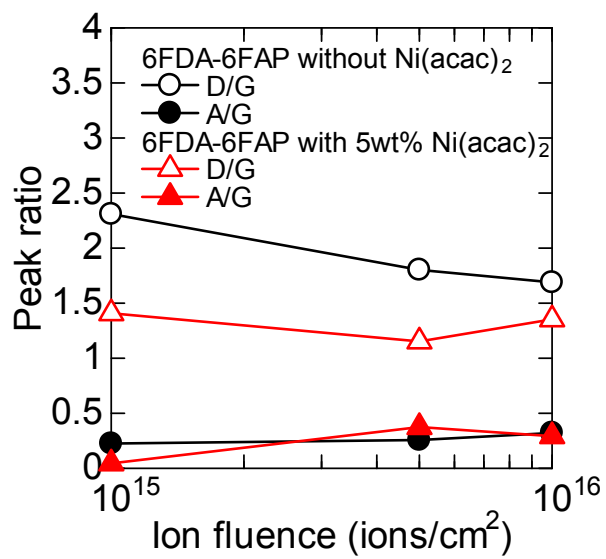


Fig. S7. D/G and A/G peak ratio of ion-beam irradiated 6FDA-6FAP nanofibrous membranes containing various amount of Ni(acac)₂ measured by Raman spectroscopy.