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RESEARCH ARTICLE

Flexible and ultrathin dopamine modified MXene and cellulose nanofiber composite films with alternating multilayer structure for superior electromagnetic interference shielding performance

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Supporting Information

Table S1 The detailed electrical resistance data of the aDM3@CNF2 composite film under the bending test.

Cycle numbers	Resistance (mΩ)
0	425.12
5	426.72
10	428.80
15	428.48
20	426.72
25	480.32
30	501.92
35	489.60
40	496.96
45	484.48
50	501.92
55	473.44
60	499.04
65	498.56
70	462.08
75	492.64
80	492.64
85	474.40
90	496.96
95	473.44
100	502.08

Table S2 Comparison of the EMI shielding performance of the multilayered DM@CNF composite films with other reported materials.

Type	Sample	Materials	Thickness (mm)	SE (dB)	SSE/t (dB·cm^2·g^{-1})	Refs.
Metal-based	1	Ag NW	0.500	35.0	2416	[1]
	2	CuNi-CNT	1.500	54.6	1580	[2]
	3	Ni filaments/PES	2.850	87.0	165	[3]
Carbon-based	4	MWNTs/WPU	2.300	35.0	2143	[4]
	5	CNTs/Cellulose	0.150	35.0	1372	[5]
MXene-based	6	$Ti_3C_2T_x$/CNFs	0.047	24.0	2647	[6]
	7	$Ti_3C_2T_x$/rGO/epoxy	2.000	56.4	9400	[7]
	8	CNTs/MXene/Cellulose	0.038	38.4	8020	[8]
	9	Cellulose/MXene	0.035	39.6	7029	[9]
	10	$Ti_3C_2T_x$/PVA	5.000	28.0	5136	[10]
MXene-based	11	aDM2@CNF1	0.029	41.9	10169	This work
	12	DM2@CNF1	0.018	30.3	5547	
	13	aDM3@CNF2	0.024	39.2	6884	
	14	DM3@CNF2	0.019	38.5	6223	
	15	aDM/CNF	0.026	30.4	6976	
	16	DM/CNF	0.019	14.3	2773	

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