

Supplementary files

Novel Synthesis of Polyaniline/Tellurium (PANI/Te) Nanocomposite and its EMI Shielding Behavior

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Table S1. XRD diffraction analysis of F2, F4 and F7 highlighting Tellurium XRD peaks

Te Crystal Plane	2 θ (deg)		
	F2	F4	F7
(100)	23.44	22.01	23.0
(101)	28.03	26.66	26.75/27.66
(102)	38.88	37.27	38.39
(110)	40.37	39.35	40.54
(111)	43.58	42.33	43.12
(003)	47.10	47.10	46.66
(021)	47.10	48.59	---
(201)	50.02	50.32	49.64
(103)	----	55.87	---
(202)	57.18	---	57.03
(210)	63.79	62.72	63.23
(211)	65.86	65.05	65.79
(203)	68.71	67.01	68.32
(212)	72.47	71.19	71.94

Table S2. FTIR analysis of PANI/Te-PVA composite films

Samples	Wavenumbers (cm ⁻¹) in PANI/Te-PVA samples		
Vibrations	F2	F4	F7
O-H stretching	3235	3256	3206
CH ₂ asymmetric stretching	2924	2917	2917
CH ₂ symmetric stretching	2353	2379	2356
Due to water absorption	1638	1626	1636
CH ₂ bending	1451	1451	1408
δ (OH), rocking with CH wagging	1368	1364	1320
C-C-O stretching/bending of OH	1015	1031	1031
CH ₂ rocking	915	915	916
C-C stretching	835	836	826

Figure S1. shows the EDAX analysis showing various components in the composite.

