

Supplementary Information:

Particle Collection of Electret Filter Media at Different Filtration Pressures

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Table S1: The fitted coefficient A in Eq. 16 for η_n as a function of the Kn #.

	Kn (E1)	Kn (E2)	A (E1)	A (E2)
3atm	0.00319	0.00235	0.698	0.666
2atm	0.0048	0.0035	0.791	0.854
1atm	0.00968	0.00715	1	1
0.5atm	0.01937	0.01430	0.981	1.019
0.33atm	0.03014	0.02225	1.066	1.054

Table S2: The fitted coefficient B in Eq. 17 for η_c as a function of the Kn #.

	Kn (E1)	Kn (E2)	B (E1)	B (E2)
3atm	0.00319	0.00235	1.445	0.666
2atm	0.0048	0.0035	1.324	0.664
1atm	0.00968	0.00715	1	1
0.5atm	0.01937	0.01430	0.704	0.764
0.33atm	0.03014	0.02225	0.540	0.654

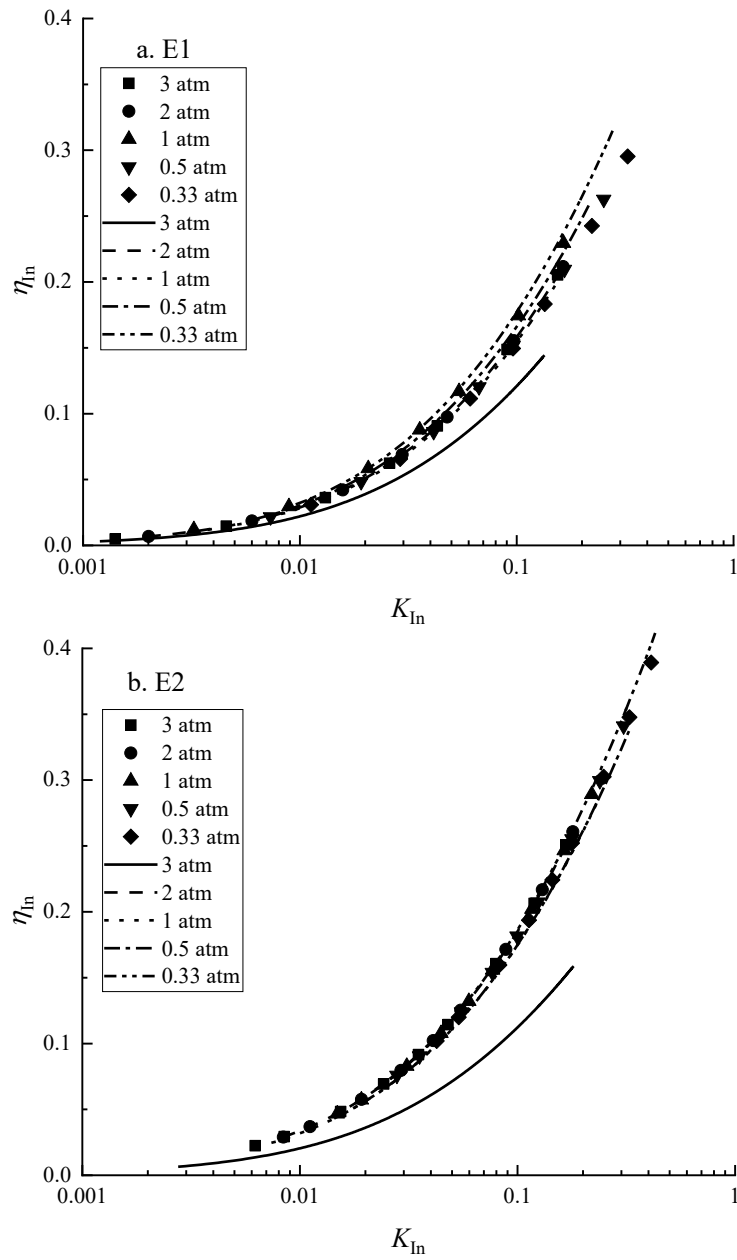


Figure S1: Comparison of the single fiber efficiency, η_{In} , calculated by Eq. 2 with the measured data (symbols: measured; lines: calculated).

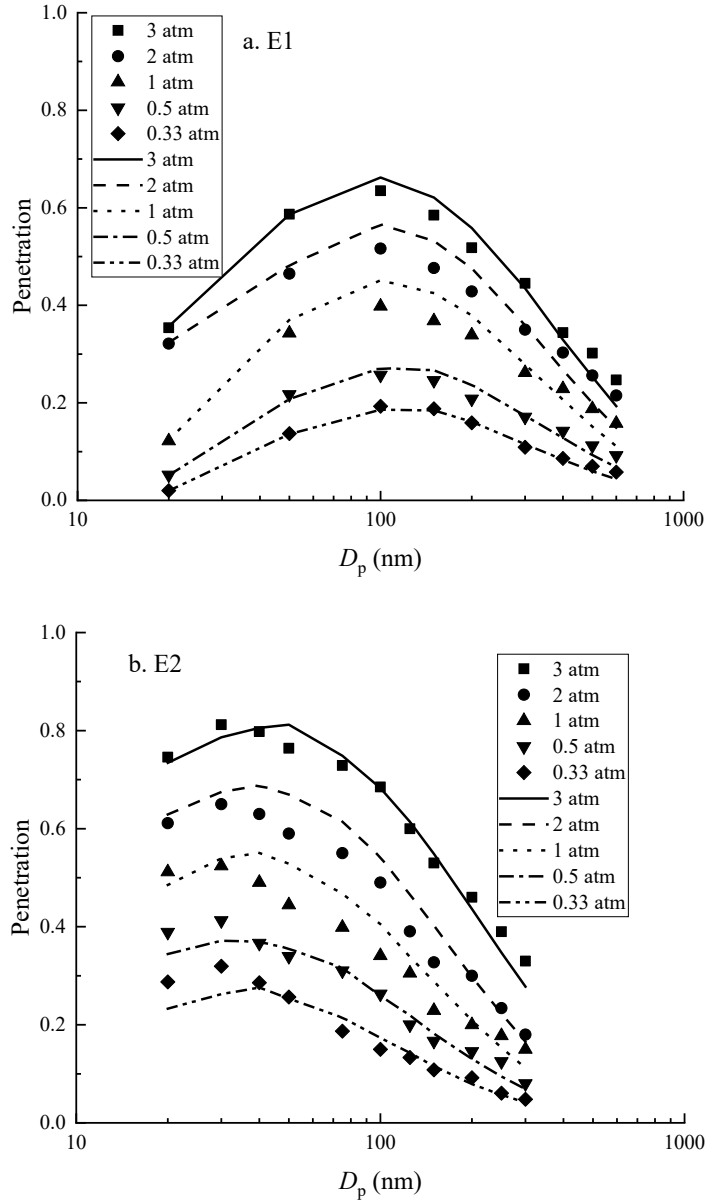


Figure S2: Comparison of the measured particle penetration through electret media for neutral particles with the calculated by Eq. 12, 17 and 19.

(Symbols: measured; Lines: calculated).

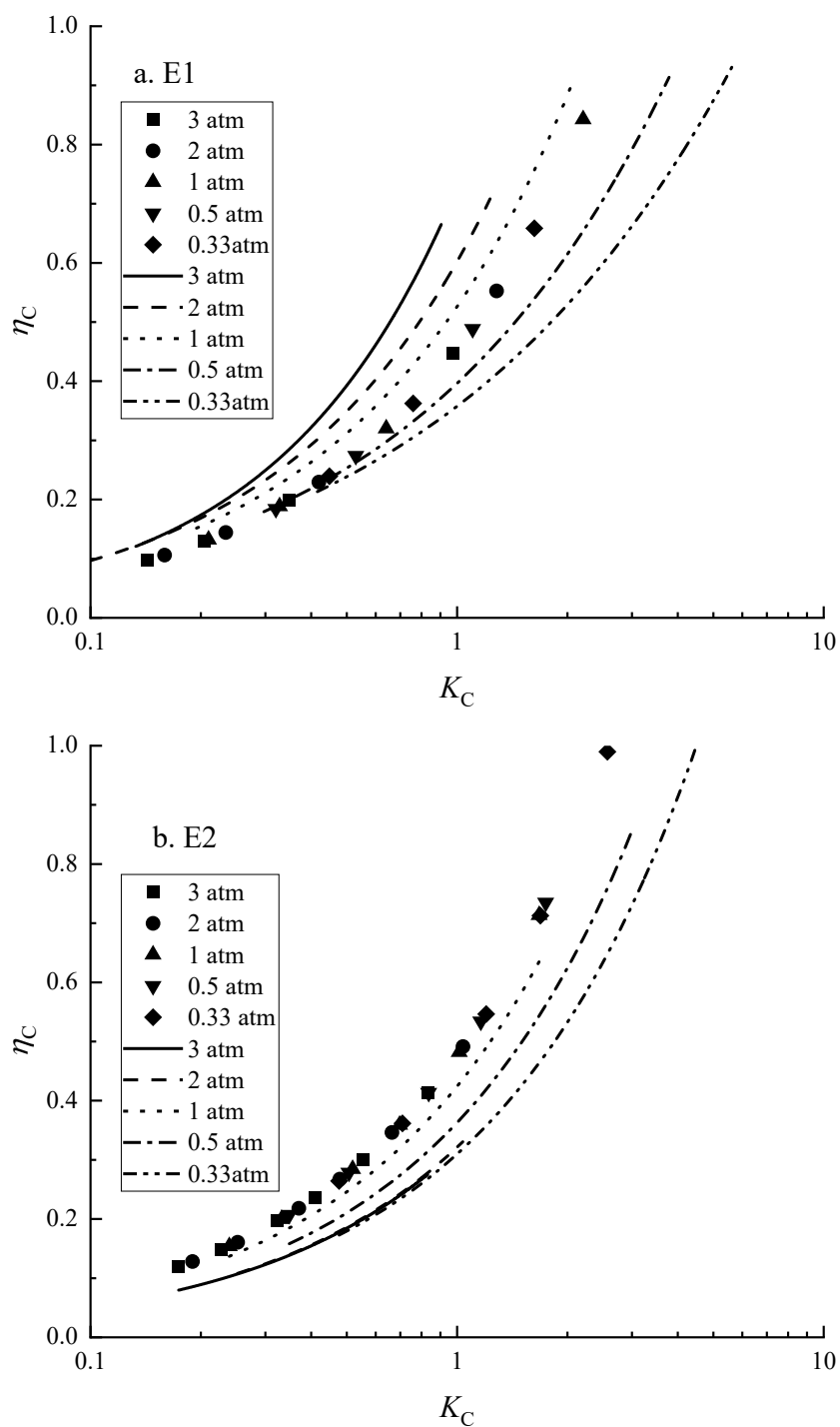


Figure S3: Measured single fiber efficiency, η_C , as a function of the dimensionless parameters K_C at test filtration pressures

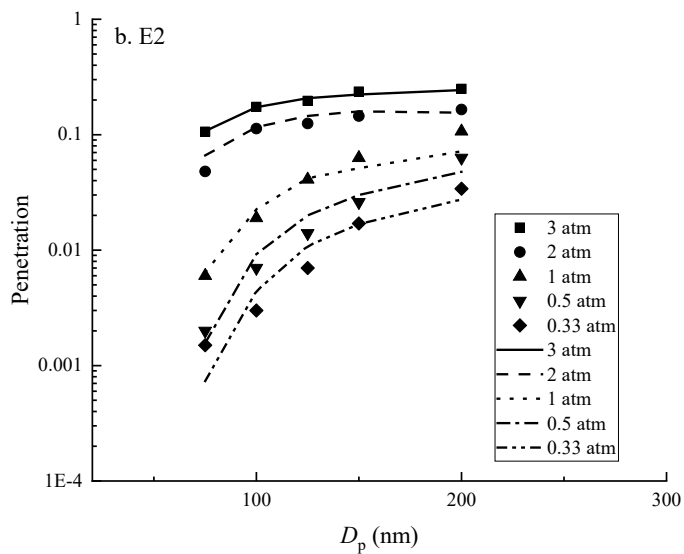
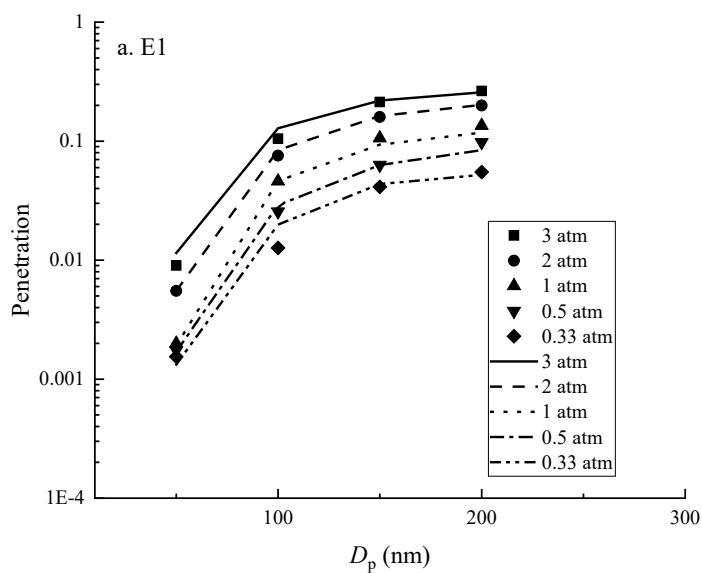


Figure S4: Comparison of the measured particle penetration through electret media for singly charged particles with that calculated by Eq. 12, 18 and 20. (Symbols: measured; Lines: calculated)