Supplementary materials

BET analyses of raw and activated BP

Horiba Instruments, Inc.
SA-9600 Series Surface Area Analyzer

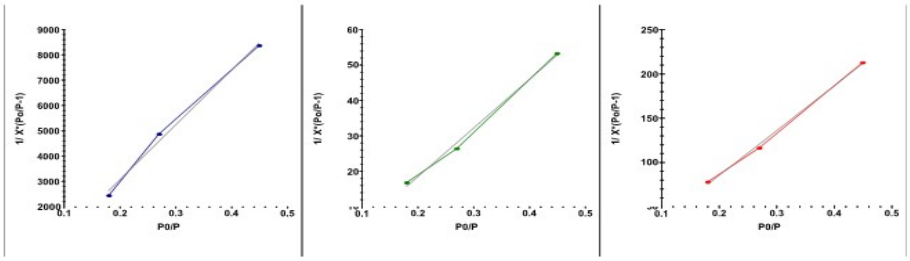
Analysis Report
Jan/05/2022

Customer	: Bereket	Operator ID	: ARA
Description	: Activated banana peel	Analysis Date	: Jan/05/2022
Filename	: Run 1	Analysis Time	: 10:36:59

Condition Settings

Room Temp	: 23.0 (°C)	Atm. Pres	: 700.0 (mm)
Gas Used	: Nitrogen	Gas Conc	: 50.0, 30.0, 20.0 %

	Channel: 1	Channel: 2	Channel: 3
Sample Name	Raw	Before	After
Tube Number	1	2	3
Tare Weight	10.0760 (gm)	10.0150 (gm)	10.1120 (gm)
Sample Weight	10.8470 (gm)	10.8140 (gm)	10.9150 (gm)
Degas Temp.	110 (°C)	110 (°C)	110 (°C)
Degas Time	120 (min)	120 (min)	120 (min)
Surface Area (M^2/gm)	10	200.210	80.593
Slope	21656.926	137.503	506.287
Intercept	-1254.115	-8.966	-15.684
Vm	0.000	0.008	0.002
BET Const	-16.269	-14.337	-31.280
Pearson Coef	0.996	0.997	0.999
X[1] - 0.449	8366.942	53.281	212.875
X[2] - 0.269	4866.978	26.415	116.485
X[3] - 0.179	2439.438	16.807	77.947



IR Spectrum Table by Frequency Range

Absorption (cm-1)	Appearance	Group	Compound Class
3350-3310	Medium	N-H stretching	secondary amine
2830-2695	Medium	C-H stretching	Aldehyde
1725-1705	Strong	C=O stretching	aliphatic ketone
1650-1600	medium	C=C stretching	conjugated alkene
1650-1580	medium	N-H bending	Amine
1650-1566	medium	C=C stretching	cyclic alkene
1620-1610	Strong	C=C stretching	α, β-unsaturated ketone
1390-1380	medium	C-H bending	Aldehyde
1385-1380	medium	C-H bending	Alkane
1420-1330	medium	O-H bending	Alcohol
1415-1380	Strong	S=O stretching	Sulfate
1410-1380	Strong	S=O stretching	sulfonyl chloride

1400-1000	Strong	C-F stretching	flora compound
1390-1310	medium	O-H bending	Phenol
1070-1030	strong	S=O stretching	Sulfoxide