

Table A. Statistical properties of ejection velocities and angles

$V_{IE}^{<V_{IE}>}$	diameter	$u_*$	$\rho$	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
snow	0.48	0.3	910	1	0.54	1.11	4.36	0.17	2.75	0.92
mustard seed	1.80	0.51	1670	1	0.96	2.44	10.74	0.00	5.89	0.75
ice particle	2.80	0.65	910	1	0.77	1.52	5.20	0.05	3.37	0.83
$V_{3E}^{<V_{3E}>}$	diameter	$u_*$	$\rho$	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
snow	0.48	0.3	910	1	0.64	0.93	3.92	0.09	3.14	0.90
mustard seed	1.80	0.51	1670	1	0.98	2.42	9.58	0.25	5.55	0.62
ice particle	2.80	0.65	910	1	0.85	1.14	3.60	0.05	3.81	0.67
$V_E^{<V_E>}$	diameter	$u_*$	$\rho$	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
snow	0.48	0.3	910	1	0.49	1.04	4.20	0.23	2.53	0.92
mustard seed	1.80	0.51	1670	1	0.91	2.38	11.20	0.12	5.48	0.70
ice particle	2.80	0.65	910	1	0.73	1.41	4.91	0.14	3.27	0.86
$\alpha_E^{<\alpha_E>}$	diameter	$u_*$	$\rho$	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
snow	0.48	0.3	910	1	0.59	0.66	2.77	0.11	2.51	0.89
mustard seed	1.80	0.51	1670	1	0.77	1.32	5.13	0.03	3.93	0.87
ice particle	2.80	0.65	910	1	0.70	0.87	3.19	0.10	3.31	0.81

**Table B. Statistical properties of impact velocities and angles**

$V_{I1} / <V_{I1}>$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
$V_{I1} / <V_{I1}>$	snow	0.48	910	1	0.74	1.52	4.57	0.13	3.12	0.76
	mustard seed	1.80	1670	1	0.95	2.30	9.18	0.10	5.79	0.65
	ice particle	2.80	910	1	0.65	1.26	4.19	0.15	2.96	0.85
$V_{3I} / <V_{3I}>$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
$V_{3I} / <V_{3I}>$	snow	0.48	910	1	0.72	1.24	3.77	0.09	3.21	0.74
	mustard seed	1.80	1670	1	0.80	1.59	5.66	0.24	4.51	0.82
	ice particle	2.80	910	1	0.76	1.64	6.11	0.07	4.13	0.88
$V_{I1} / <V_{I1}>$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
$V_{I1} / <V_{I1}>$	snow	0.48	910	1	0.74	1.50	4.51	0.14	3.08	0.75
	mustard seed	1.80	1670	1	0.93	2.28	9.11	0.14	5.72	0.84
	ice particle	2.80	910	1	0.65	1.25	4.16	0.15	2.94	0.65
$\alpha_{I1} / <\alpha_{I1}>$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
$\alpha_{I1} / <\alpha_{I1}>$	snow	0.48	910	1	0.49	0.89	3.80	0.28	2.53	0.96
	mustard seed	1.80	1670	1	0.58	1.45	6.14	0.11	3.66	0.88
	ice particle	2.80	910	1	0.48	0.35	2.78	0.11	2.11	0.96

**Table A. Statistical properties of ejection velocities and angles**

$V_{IE}^{<V>}$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean		skewness	kurtosis	min. value	max. value	median
				standard deviation	skewness					
ice particle	2.80	0.65	910	1	0.77	1.52	5.20	0.05	3.37	0.83
mustard seed	1.80	0.51	1670	1	0.96	2.44	10.74	0.00	5.89	0.75
snow	0.48	0.3	910	1	0.54	1.11	4.36	0.17	2.75	0.92
$V_{3E}^{<V>}$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
ice particle	2.80	0.65	910	1	0.85	1.14	3.60	0.05	3.81	0.67
mustard seed	1.80	0.51	1670	1	0.98	2.42	9.58	0.25	5.55	0.62
snow	0.48	0.3	910	1	0.64	0.93	3.92	0.09	3.14	0.90
$V_{E}^{<V>}$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
ice particle	2.80	0.65	910	1	0.73	1.41	4.91	0.14	3.27	0.86
mustard seed	1.80	0.51	1670	1	0.91	2.38	11.20	0.12	5.48	0.70
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$\alpha_{E}^{<\alpha>}$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
ice particle	2.80	0.65	910	1	0.70	0.87	3.19	0.10	3.31	0.81
mustard seed	1.80	0.51	1670	1	0.77	1.32	5.13	0.03	3.93	0.87
snow	0.48	0.3	910	1	0.59	0.66	2.77	0.11	2.51	0.89

**Table B. Statistical properties of impact velocities and angles**

$V_{I1} < V_{I2} >$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
ice particle	2.80	0.65	910	1	0.65	1.26	4.19	0.15	2.96	0.85
mustard seed	1.80	0.51	1670	1	0.95	2.30	9.18	0.10	5.79	0.65
snow	0.48	0.3	910	1	0.74	1.52	4.57	0.13	3.12	0.76
$V_{3I} < V_{3I} >$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
ice particle	2.80	0.65	910	1	0.76	1.64	6.11	0.07	4.13	0.88
mustard seed	1.80	0.51	1670	1	0.80	1.59	5.66	0.24	4.51	0.82
snow	0.48	0.3	910	1	0.72	1.24	3.77	0.09	3.21	0.74
$V_{I1} < V_{I2} >$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
ice particle	2.80	0.65	910	1	0.65	1.25	4.16	0.15	2.94	0.65
mustard seed	1.80	0.51	1670	1	0.93	2.28	9.11	0.14	5.72	0.84
snow	0.48	0.3	910	1	0.74	1.50	4.51	0.14	3.08	0.75
$\alpha_{I1} < \alpha_{I2} >$	diameter (mm)	$u_*$ (m/s)	$\rho$ (kg/m <sup>3</sup> )	mean	standard deviation	skewness	kurtosis	min. value	max. value	median
ice particle	2.80	0.65	910	1	0.48	0.35	2.78	0.11	2.11	0.96
mustard seed	1.80	0.51	1670	1	0.58	1.45	6.14	0.11	3.66	0.88
snow	0.48	0.3	910	1	0.49	0.89	3.80	0.28	2.53	0.96