full versions in Tab. 10 (Guacamol) and Tab. 9 (MOSES), Appendix G.3. Guacamol MOSES

Table 2: Large molecule generation performance. Only iterative denoising-based methods are reported here. Respective

Model	Val. ↑	V.U.↑	V.U.N.↑	KL div ↑	FCD ↑	Val. ↑	Unique. ↑	Novelty ↑	Filters ↑	FCD↓	SNN ↑	Scaf ↑
Training set	100.0	100.0	0.0	99.9	92.8	100.0	100.0	0.0	100.0	0.01	0.64	99.1
DiGress (Vignac et al., 2022)	85.2	85.2	85.1	92.9	68.0	85.7	100.0	95.0	97.1	1.19	0.52	14.8

59.7

72.7

57.9

73.8

88.3

90.5

83.9

92.8

100.0

<u>99.9</u>

99.9

99.9

97.7

92.6

96.9

92.1

95.6

99.1

96.5

98.9

1.44

1.27

1.87

1.95

0.50

0.54

0.50

0.55

15.1

16.0

23.5

14.4

92.6

96.7

92.3

97.7

DiGress (Vignac et al., 2022)

Cometh (Siraudin et al., 2024)

DisCo (Xu et al., 2024)

DeFoG (10% steps)

DeFoG

86.6

<u>98.9</u>

91.7

99.0

86.6

<u>98.9</u>

91.7

99.0

86.5

<u>97.6</u>

91.2

97.9