



H27.4.3, 5.11, 6.5, 6.24, 7.27, 8.3, 8.7, 8.31,
10.19, 11.30, H28.2.26

16

H27.4.24, 7.24, 11.6

3

600MHz NMR

H27.7.10, 11.16, H28.2.22, 3.4, 3.28

26



及



H27.4.9 4.16 4.23 4.30 9.17 9.24 10.8

10.15

B218 B220

C 4 2

192



40



H27. 4.9, 5.11, 5.12, 5.13, 5.14, 12.8

J 108

37



Orbitrap XL

LTQ

ESI

MS



H28.4.11

E3

30



30

J 103

29

➤ H27.4.17 9.25 9.29 10.14 11.17 H28.3.9

39

➤ TEM

90

4

➤ H27. 4.27, 4.28, 4.30, 5.1

J 109

22

➤ H28.4.20

A2 106

40

➤ AXIMA-CFR plus

MALDI

MS

30

➤ H27. 5.11 6.1 6.2 6.3 6.4 6.5 7.22

J 103

39

➤ H27. 4.20 5.25 5.26 5.27 5.28 5.29

8.24

FE-SEM



NMR

¹H

90



H27. 5.19, 5.20, 5.21, 2.24



H27.5.25 5.26 5.27 5.28

J 108

13

J306



44



JMS-T100 GCv



EPMA

EI

MS

1 2

MS



H27.8.27 8.28



2

SEM

H27.5.20 5.21 5.22 5.25 5.26 5.27

15

5.28 5.29



J 101

32



SEM



8

SEM

2