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Science

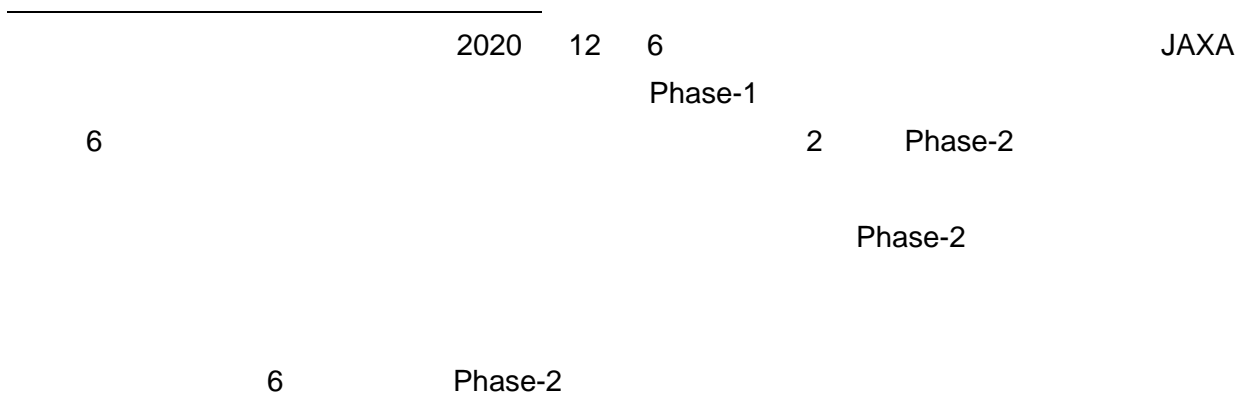
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Science 2022 9 23

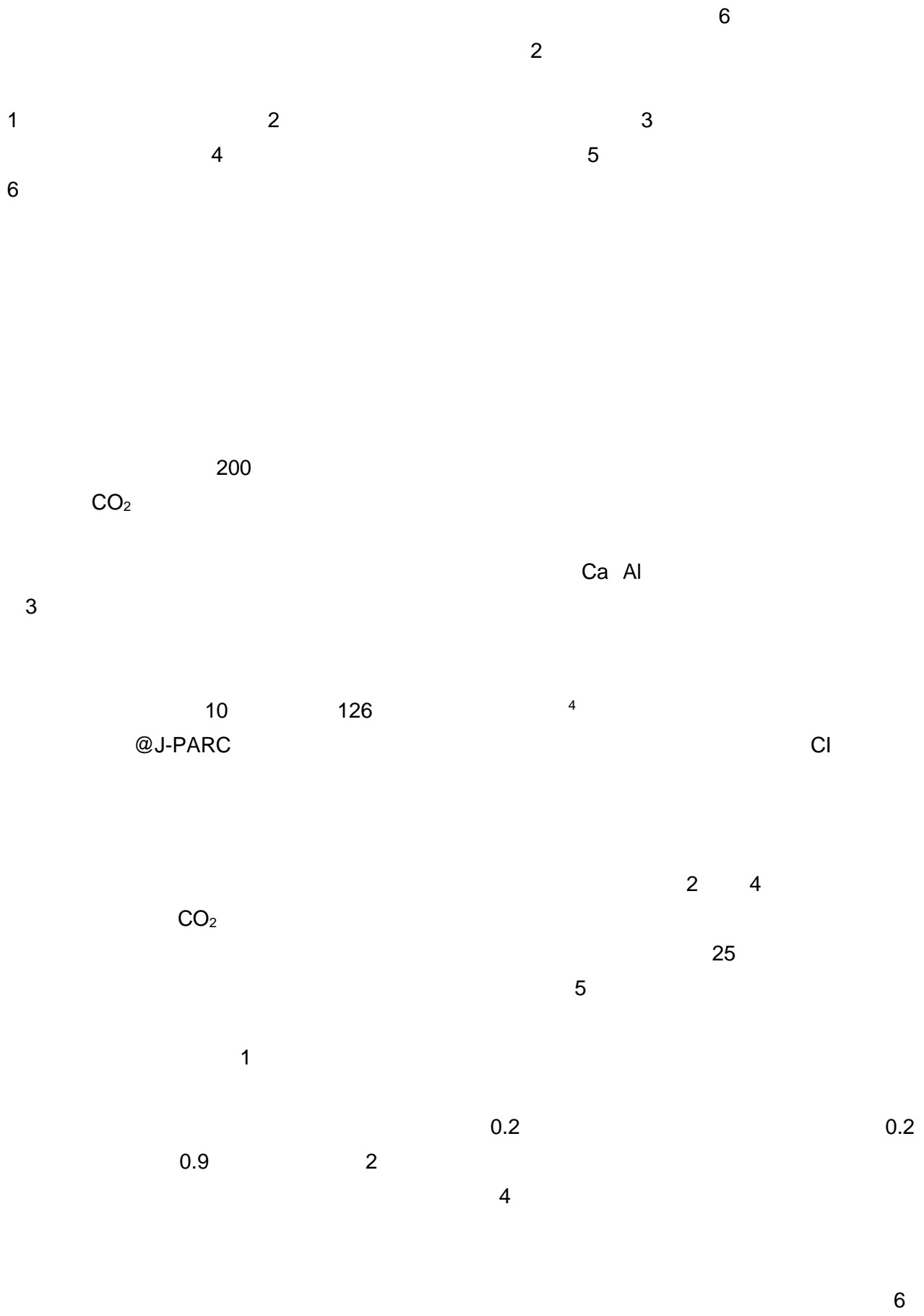
Formation and evolution of carbonaceous asteroid Ryugu: Direct evidence from returned samples

Science

D O I 10.1126/science.abn8671



Formation and evolution of carbonaceous asteroid Ryugu:
Direct evidence from returned samples



1

CT

@SPring-8

1.79

0.08

³

1.19

30

1

7

46

200

200

300

500

50

100

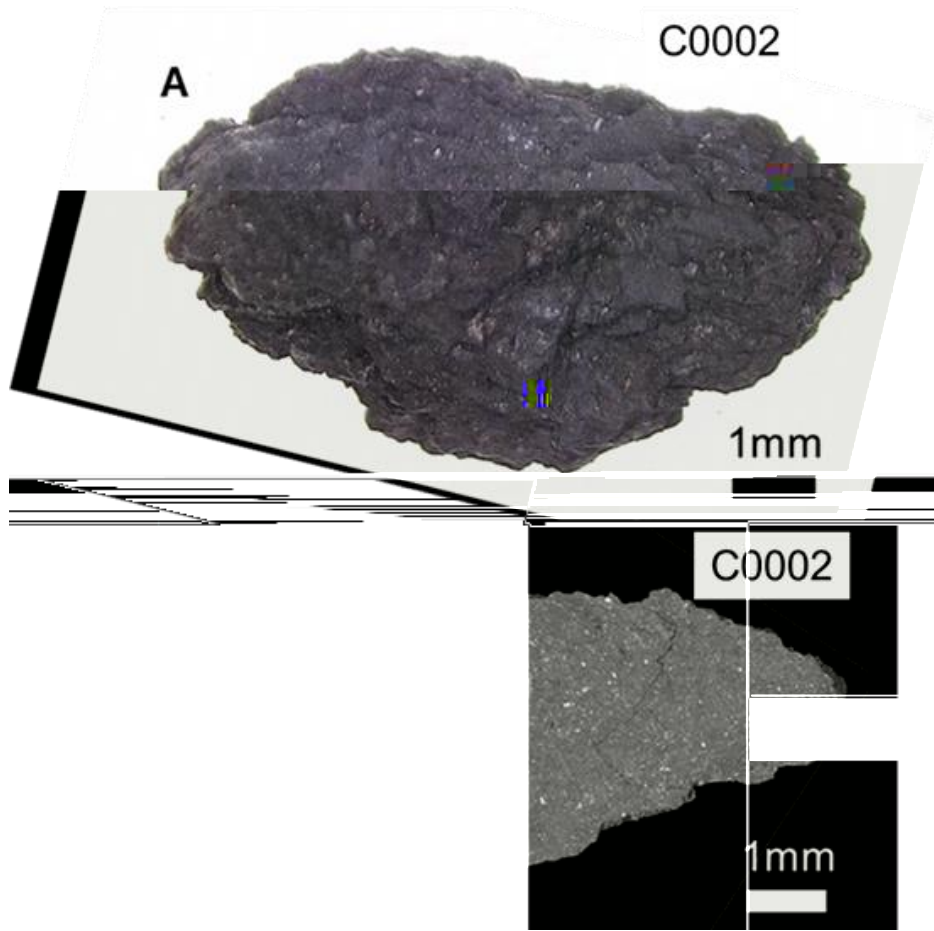
1/10

50

10GPa

0.2

2



© SPring-8

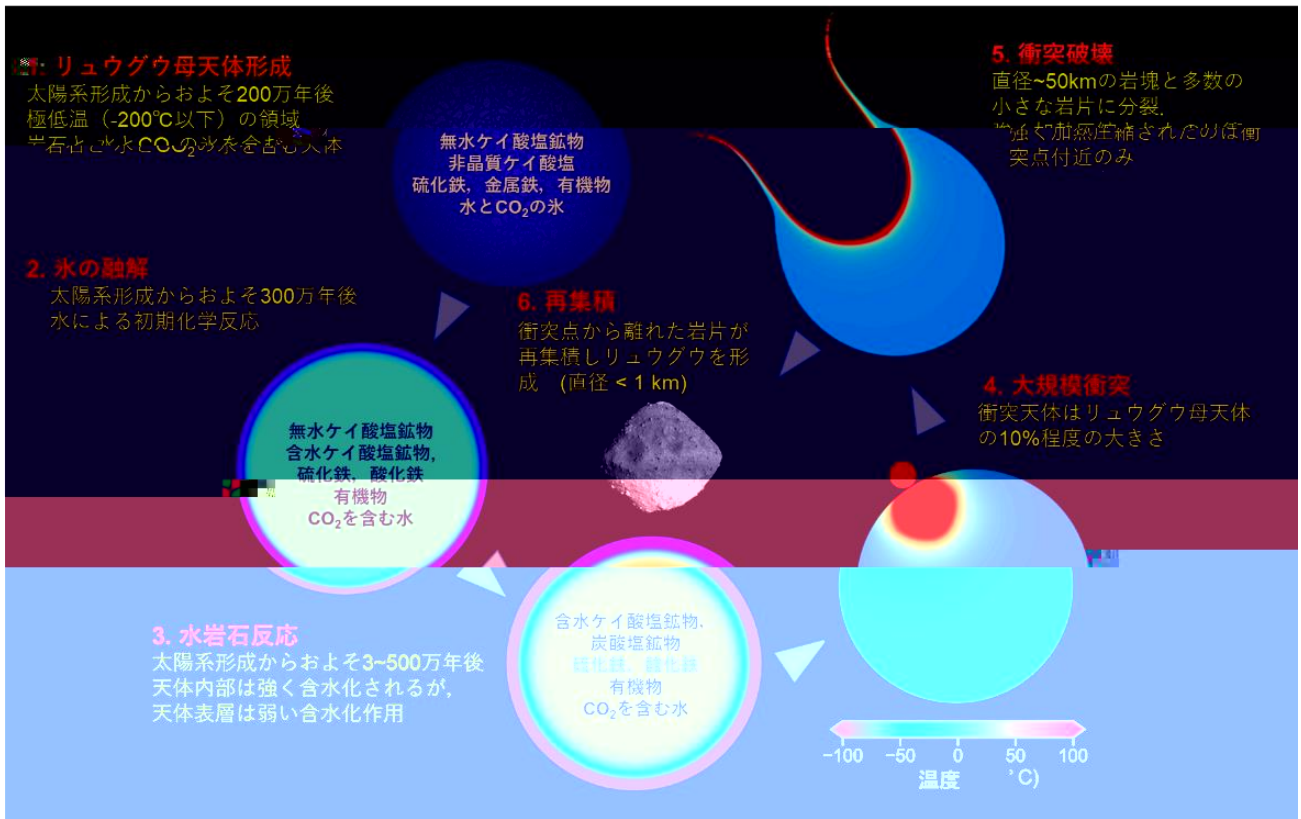
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C0002

B SPring-8

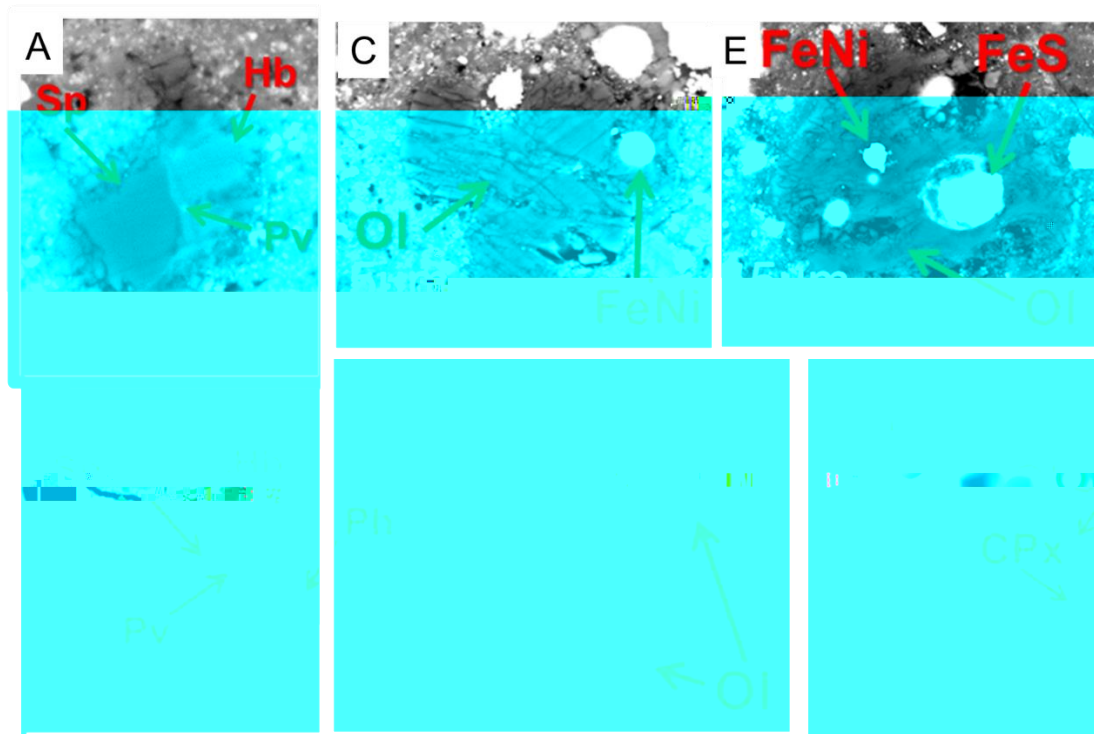
X CT

CT



© MIT

2



©

3

B) Ca Al

B-D

1000

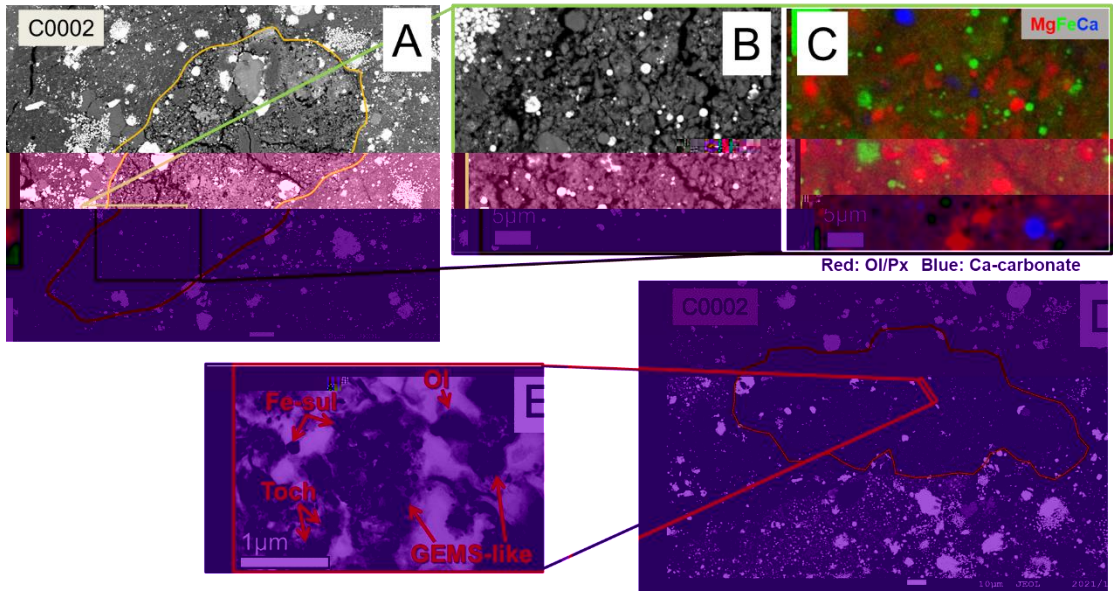
OI

FeNi

FeS

A

F



©

4 C0002

A

B

C B

D

E D

1

GEMS-like

Ol



©

NASA/JSC SPring-8

5

6

CO₂

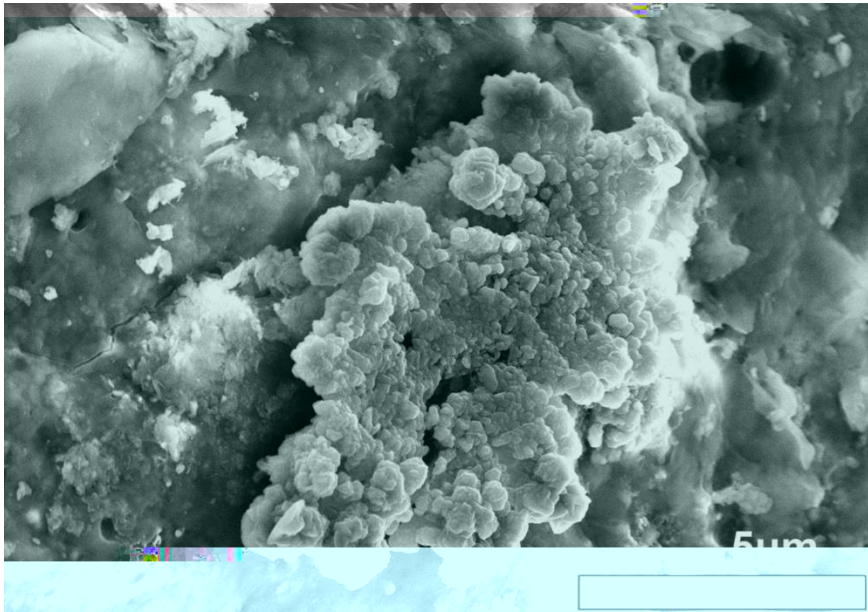
A B

CT

C

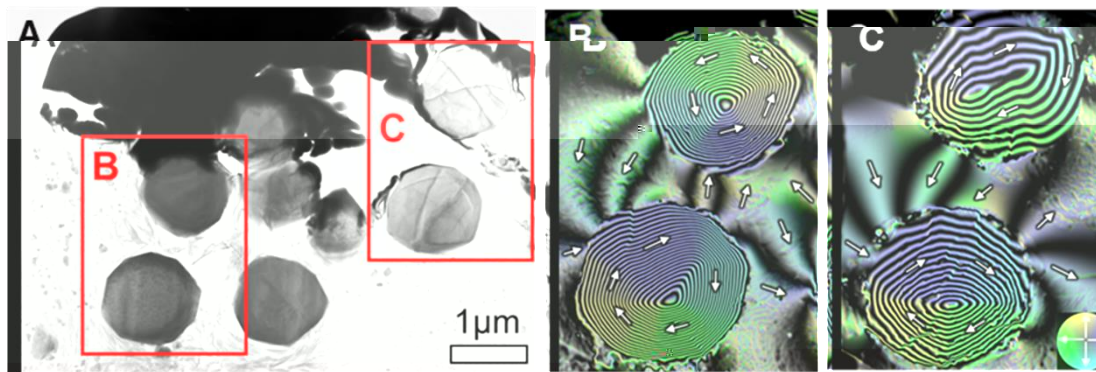
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D



©

6



© JFCC

7

Fe_3O_4

A

B C

1 Ca Al

2

100

3

45 6700

4

200

【論文情報】

雑誌名：Science

論文タイトル：Formation and evolution of carbonaceous asteroid Ryugu: Direct evidence from returned samples

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