TF7: Chinese research about “long term Fire resistance test”

Test procedure：

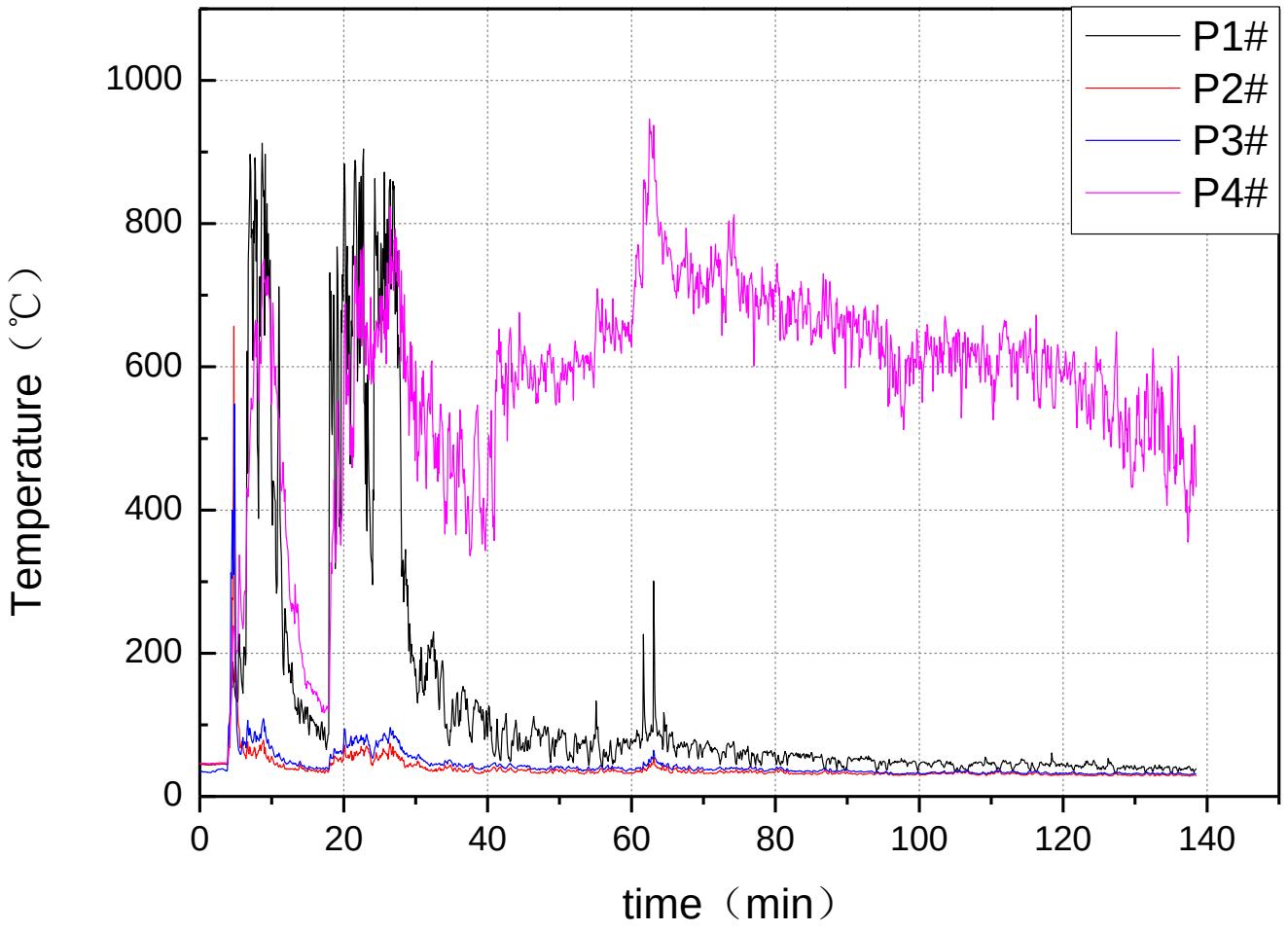
- A fully charged electrical energy storage assembly shall be subjected to a uniform fire source along the length of the assembly at its bottom surface. The center of the fire source shall be placed at the center of the assembly.
- During the test, the surface temperatures on the DUT enclosure shall be monitored. Thermocouples on the enclosure shall be placed 25mm from the bottom of the assembly. Metallic shielding shall be used to prevent direct flame impingement on the thermocouples.
- Within 5 min of ignition, at least one thermocouples shall indicate a minimum temperature of 590℃. The test is concluded when this minimum temperature indication of 590℃ has been maintained for 20 min.
- There shall be no explosion.

Parameters of test samples：

Name	Lithium-ion battery system	Lithium-ion battery system
Material	LFP	NCM
System rated voltage	300V	314.5V
System rated capacity	60Ah	80Ah
System rated energy	18KWh	25KWh
Size	1185*783*286	1623*1272*107
Weight	240Kg	300Kg
System manufacture	SAIC	Changan

Sample A :

Sample A：

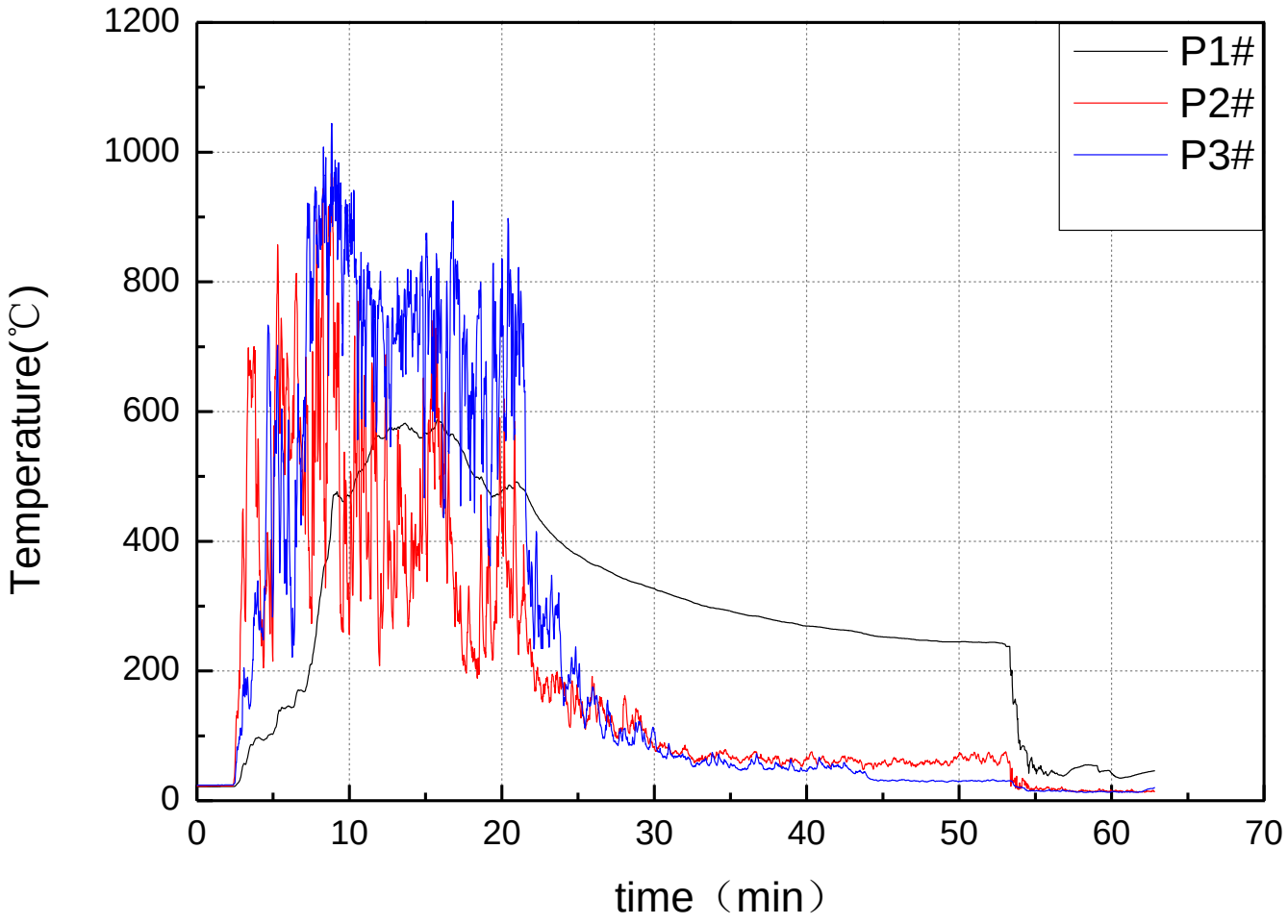


Test time: 2013-06-05

Result: DUT catches fire, no explosion

Sample B：

Sample B：



Test time: 2014-10-16

Result: DUT catches fire, no explosion

Thanks !