

# RPC Ecogas Study - Updates



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- ECOGAS1: 45% HFO, 50% CO<sub>2</sub>, 4% iC<sub>4</sub>H<sub>10</sub>, 1% SF<sub>6</sub>  
Analysis: scans - 03 April 2019 to 30 October 2019
- ECOGAS2: 35% HFO, 60% CO<sub>2</sub>, 4% iC<sub>4</sub>H<sub>10</sub>, 1% SF<sub>6</sub>  
Analysis: scans- 07 November 2019 to 11 March 2020
- The dark current monitored in all scans of the ecogas study is plotted (7 chambers)
- Data points corresponding to Ecogas1 and Ecogas2 is separated with a bold dotted line
- Atlas chamber was not tested with Ecogas2
- Conducted analysis considering the condition of source during the scan(ON/OFF)
- Removed the runs taken when the source was ON due to the unexpected spikes in the dark current trends (refer backup slides: slide 12 to 18 )

### Last meeting suggestions:

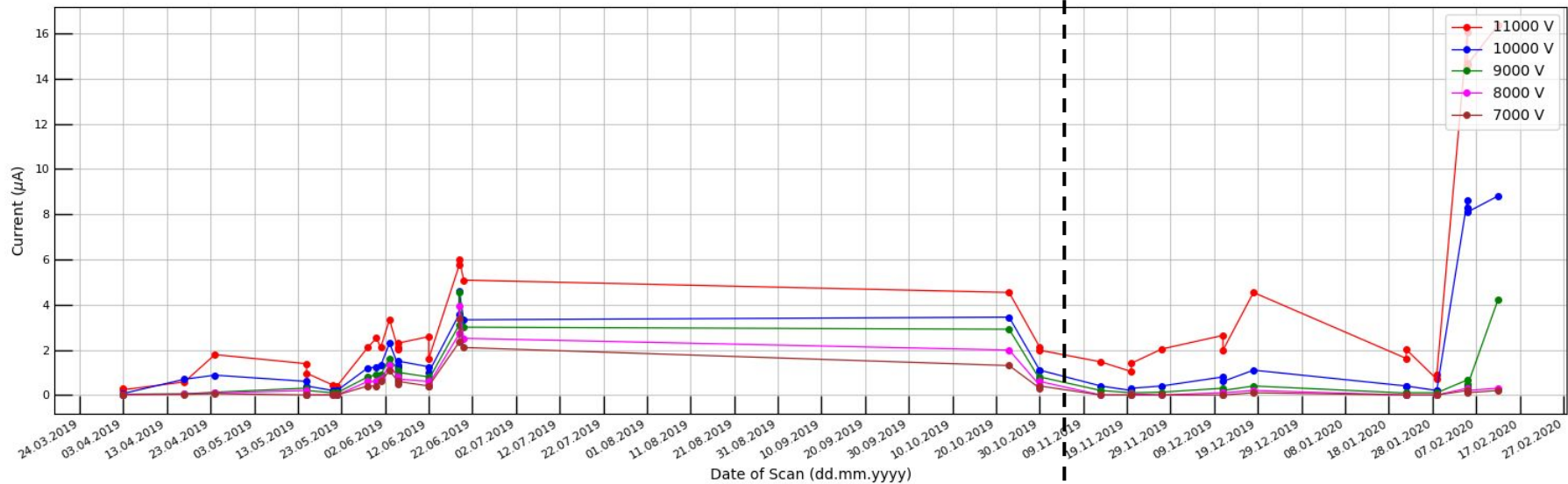
- Remove run no 45 (unexpected dark current behaviour due to some hardware problem)
- New plots after removing run 45 are included in this presentation
- Earlier plots with run 45 is shown in the backup slides (slide 19 to 25)

<b>Date</b>	<b>ABS</b>
03/05/19	22, 6.9, 2.2
09/05/19	6.9, 22, 22
16/05/19	6.9, 46, 10
07/11/19	15, 6.9

Ecogas 1

EPDT-RPC-3

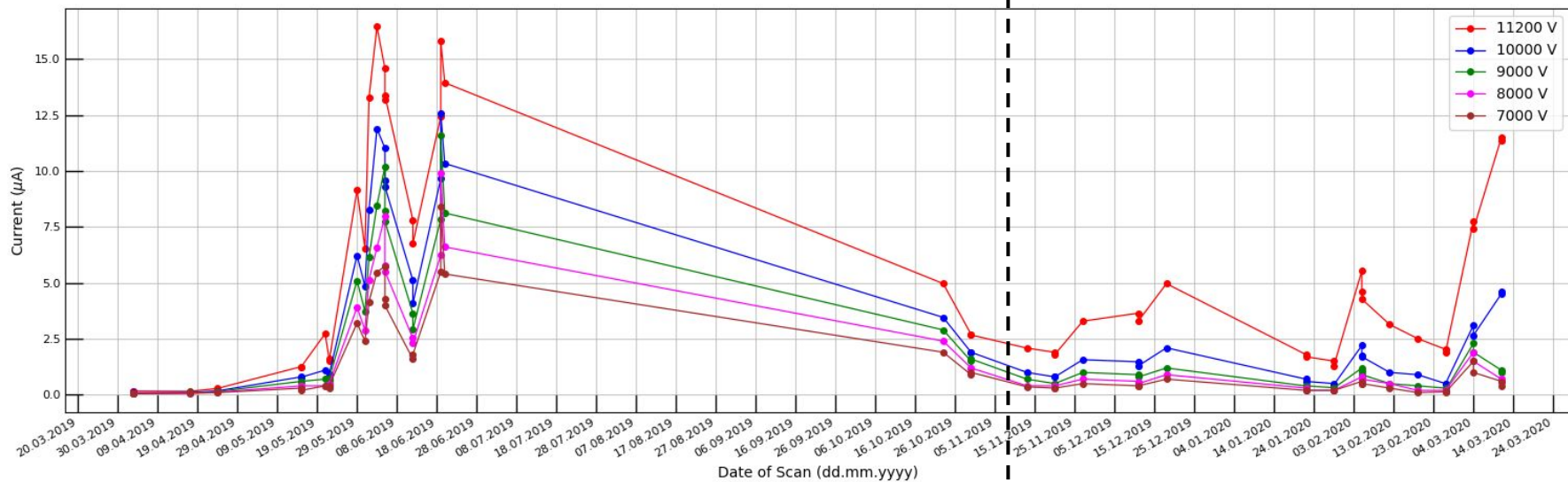
Ecogas 2



Ecogas 1

CMS-GT-2-0-BOT

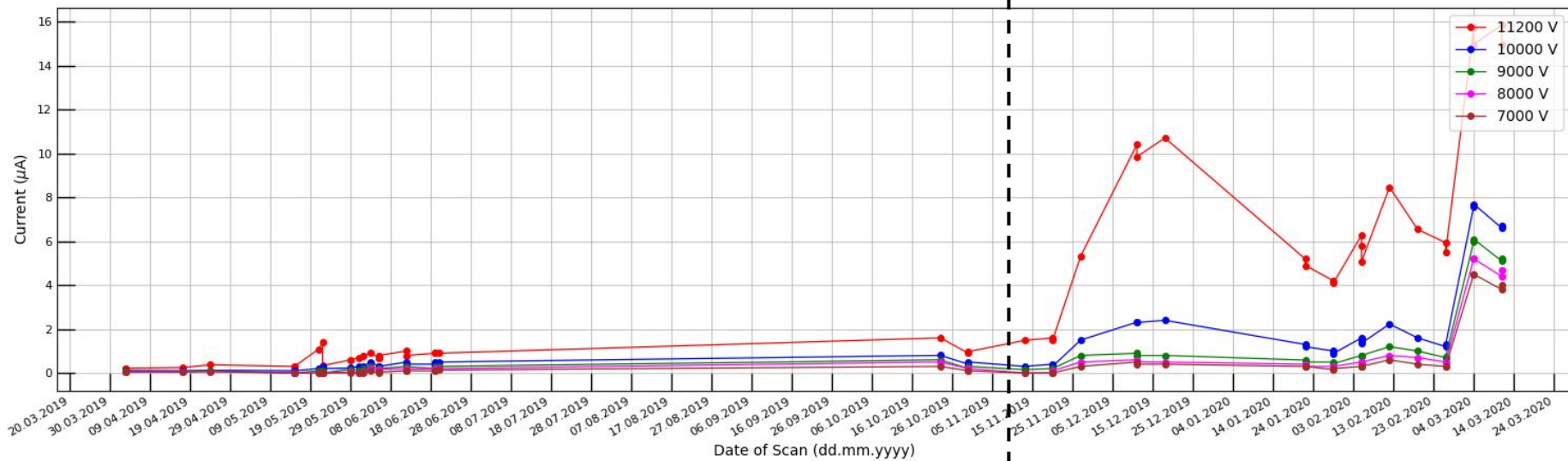
Ecogas 2



## Ecogas 1

CMS-GT-2-0-TOP

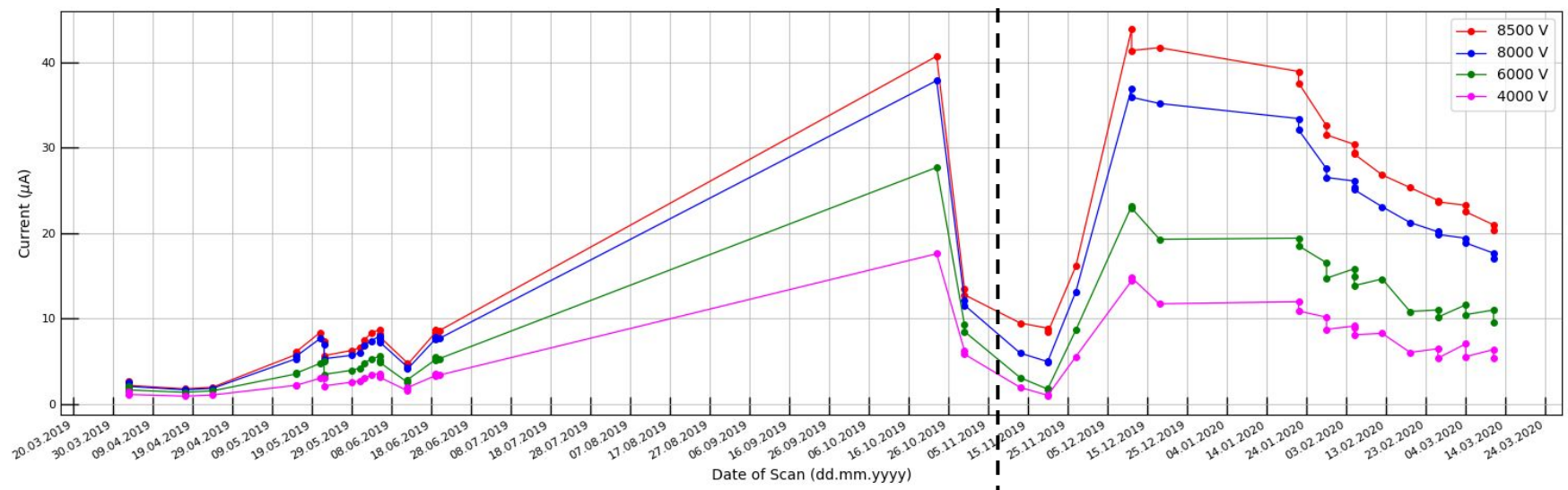
## Ecogas 2



## Ecogas 1

CMS-KODEL-1-4-BOT

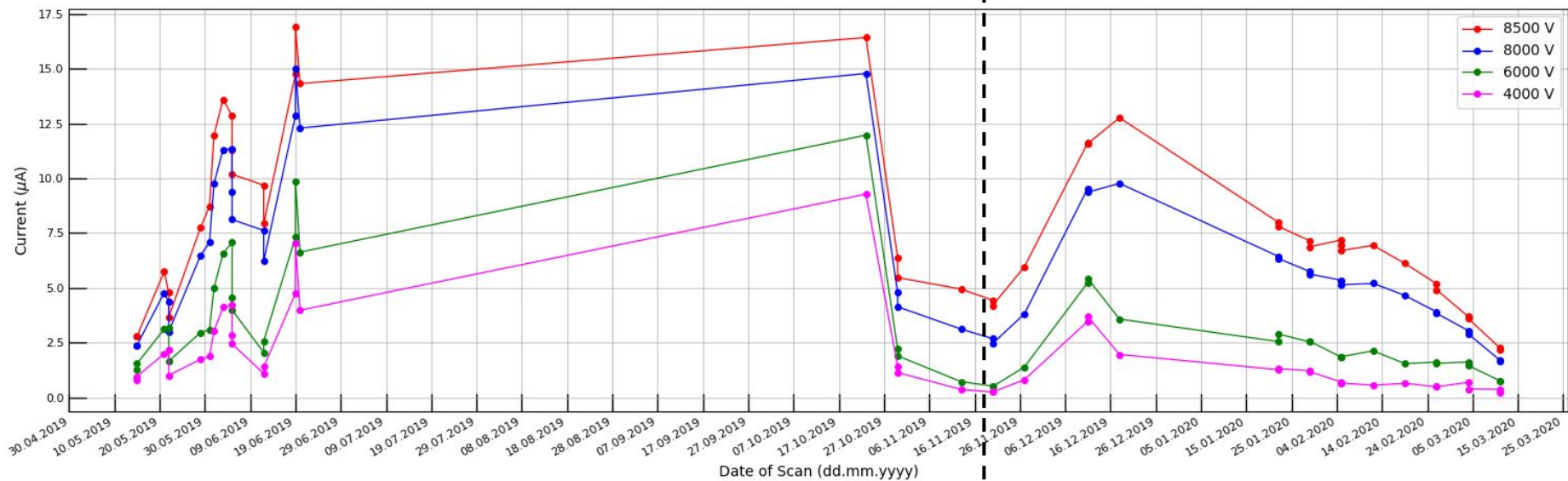
## Ecogas 2



## Ecogas 1

CMS-KODEL-1-4-TOP

## Ecogas 2

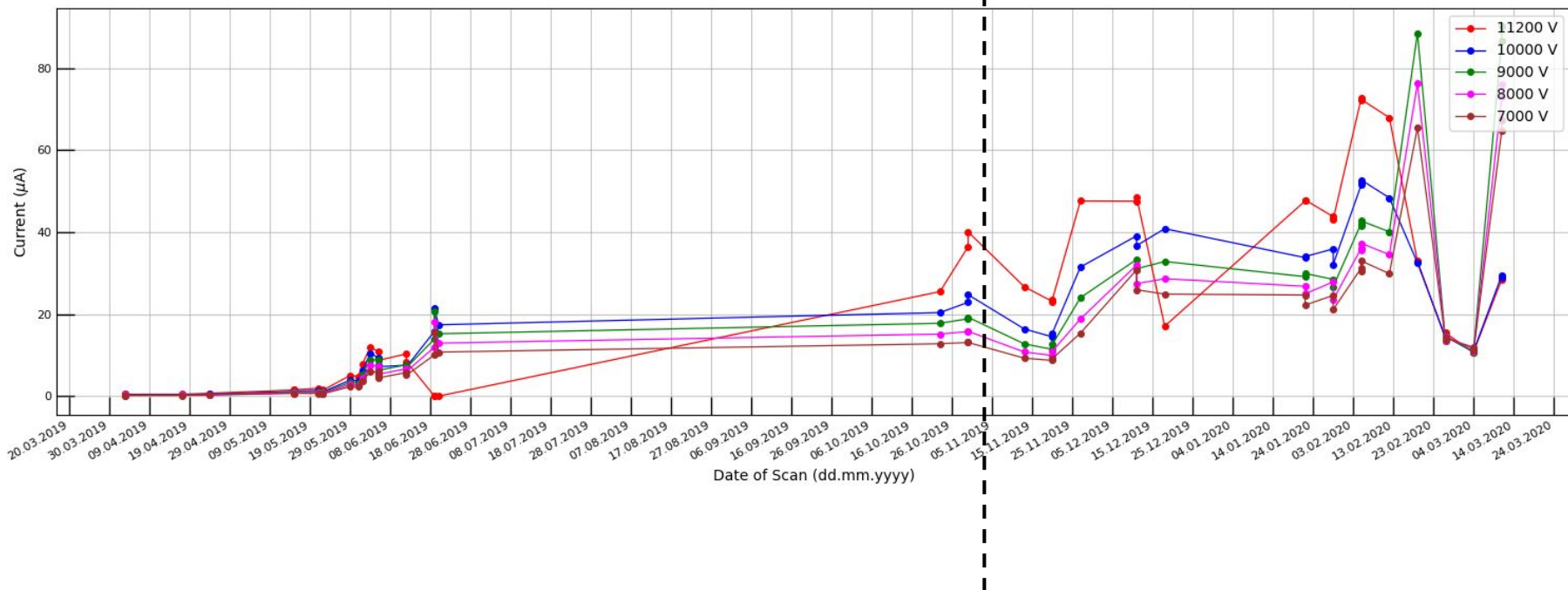




Ecogas 1

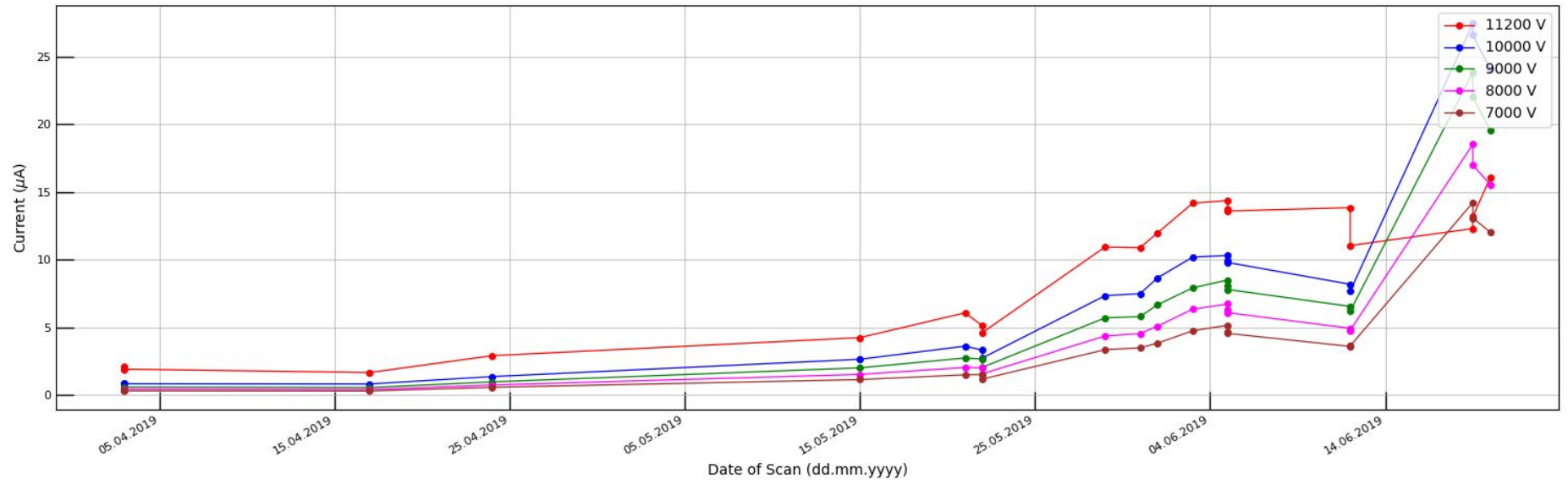
ALICE-2-0

Ecogas 2



Ecogas 1

ATLAS-2-0



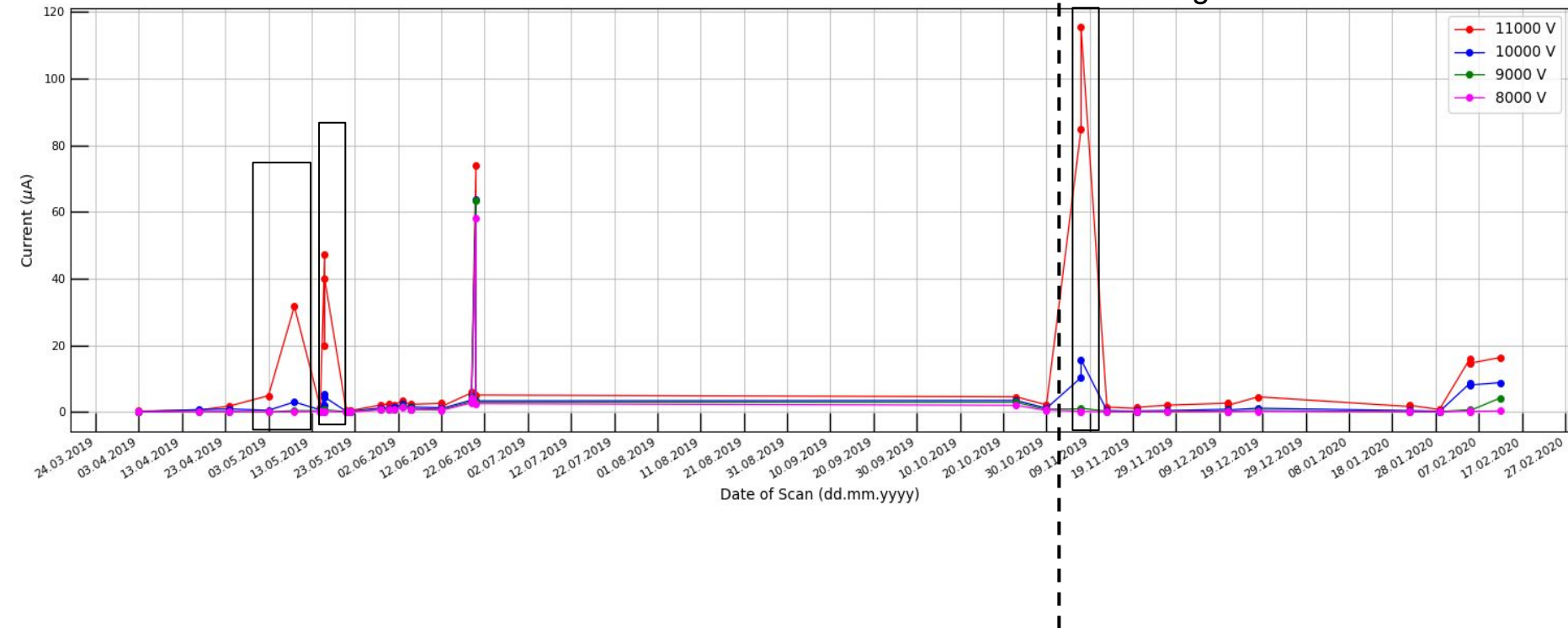
# Backup slides

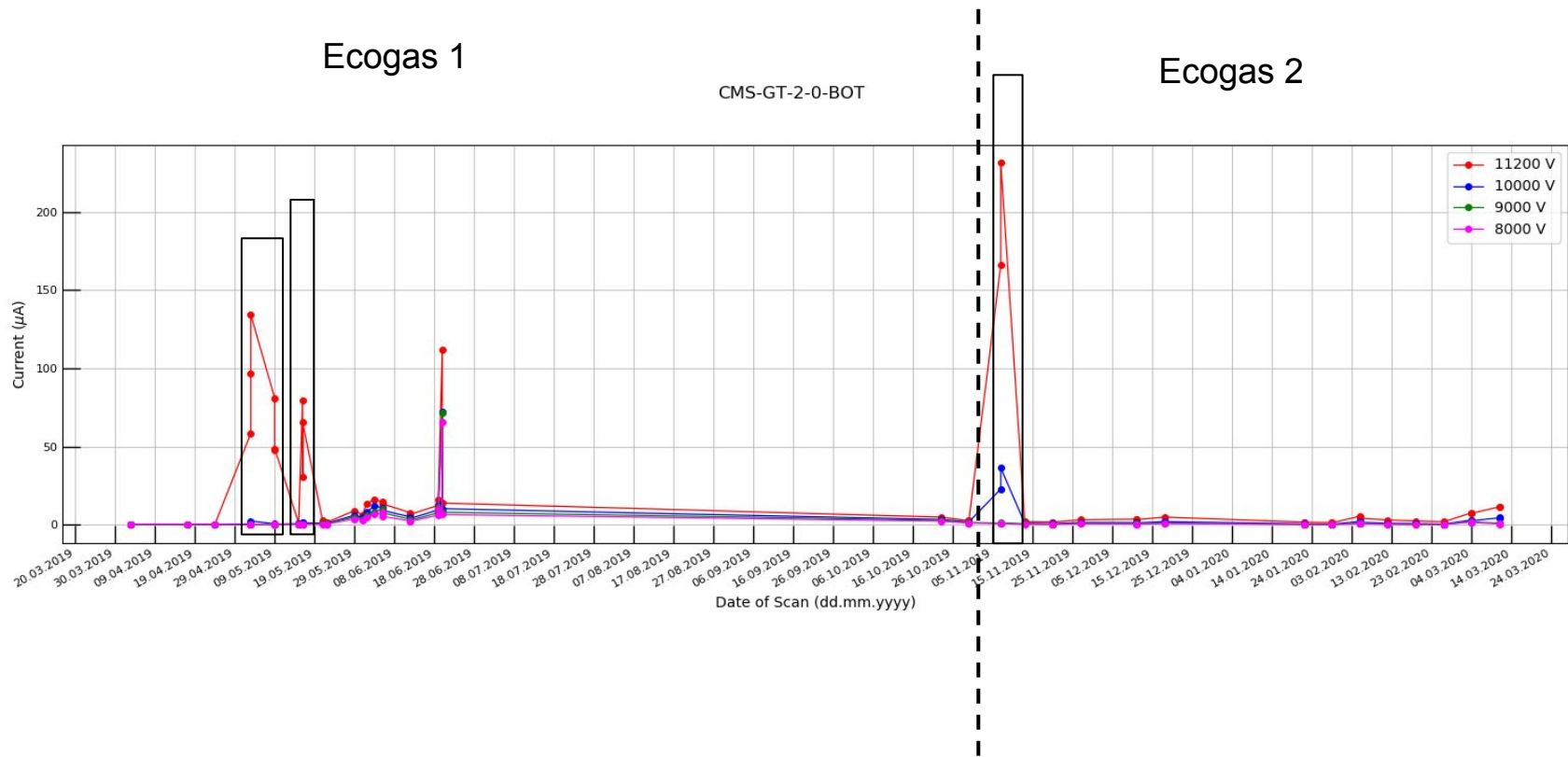
# EPDT chamber (Source ON and OFF runs included)

Ecogas 1

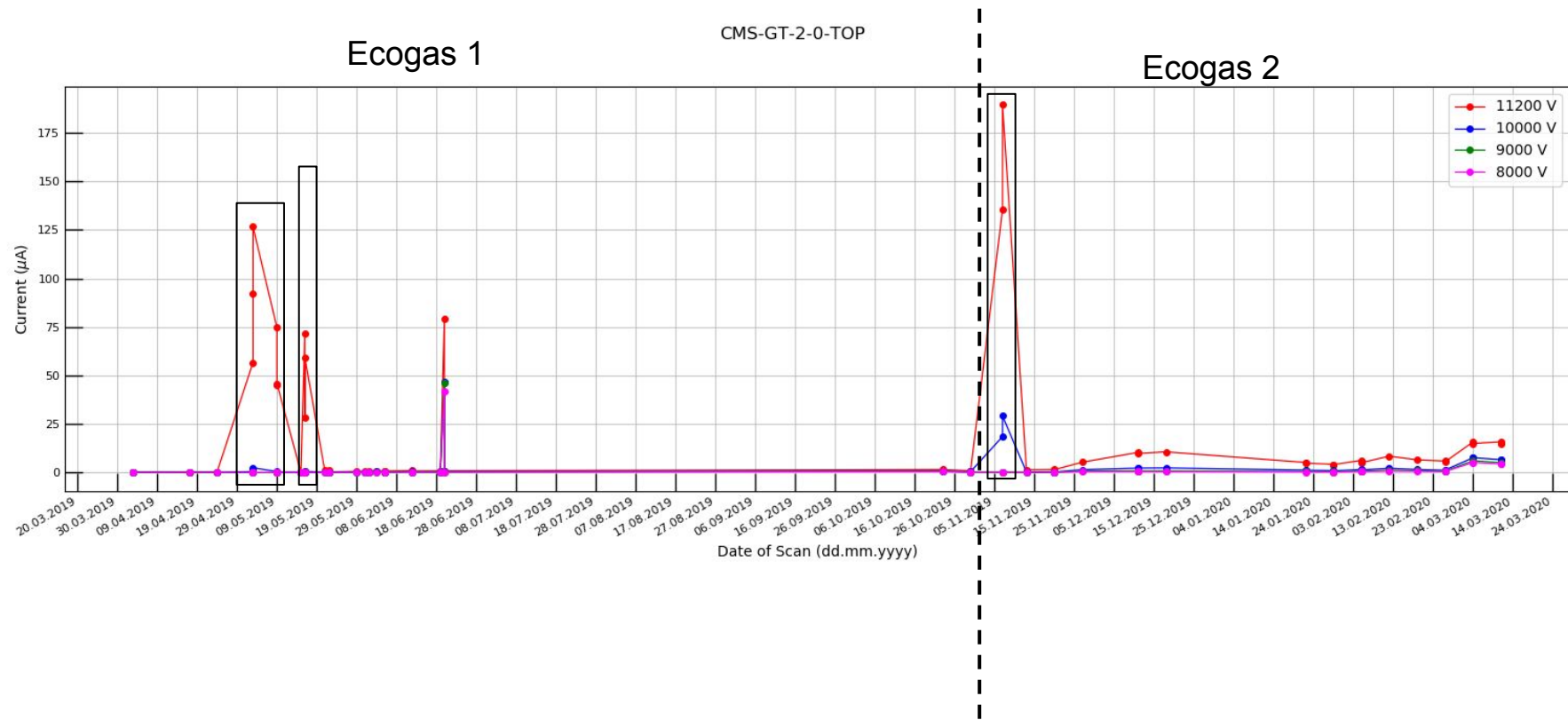
EPDT-RPC-3

Ecogas 2





# CMS-GT chamber (TOP) (Source ON and OFF runs included)

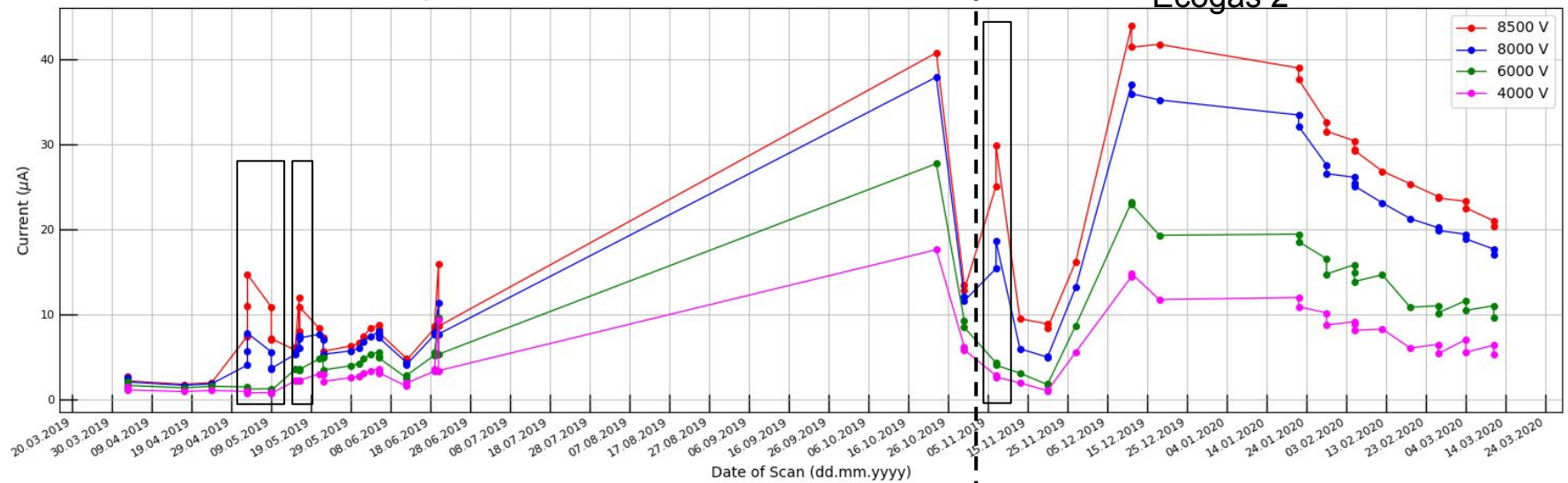


# CMS-KODEL chamber (BOT) (Source ON and OFF runs included)

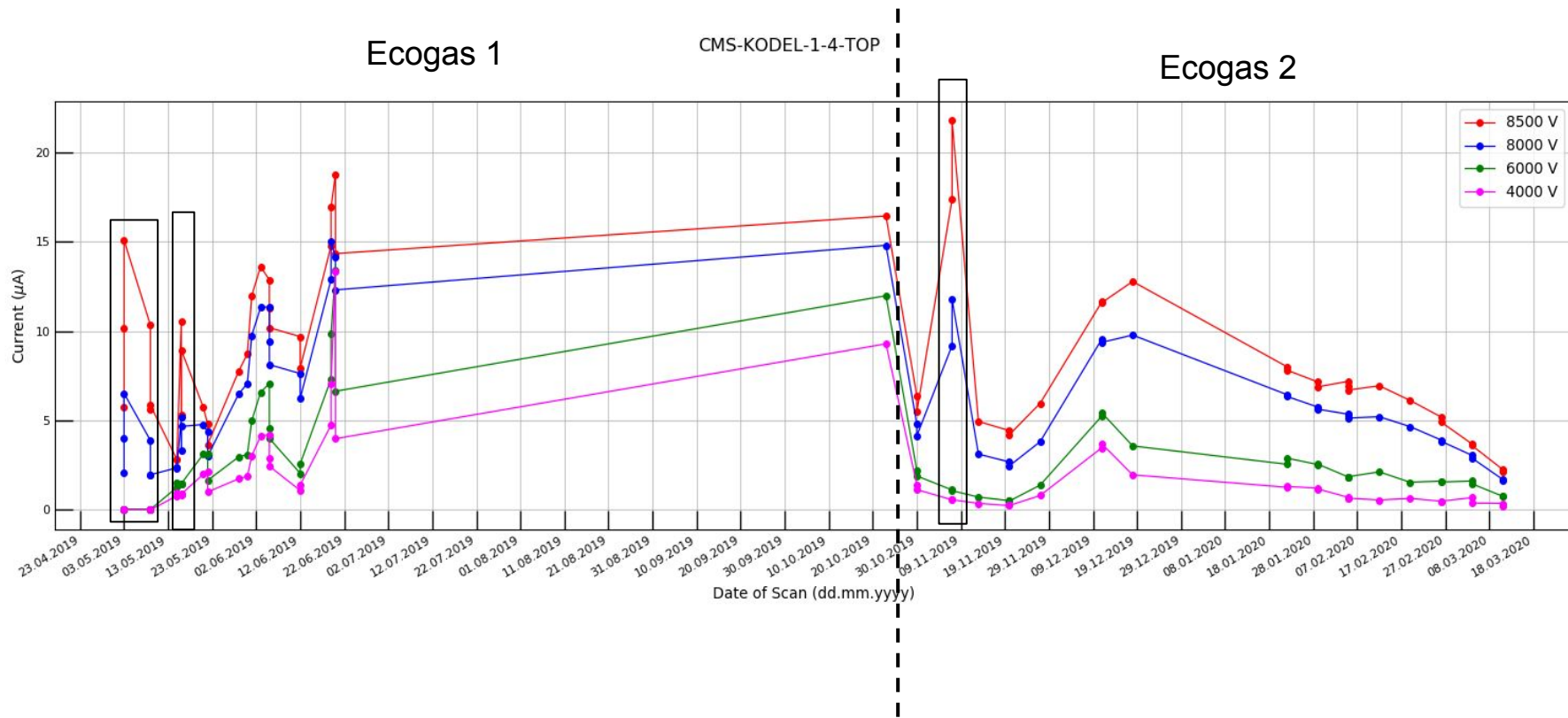
## Ecogas 1

CMS-KODEL-1-4-BOT

## Ecogas 2

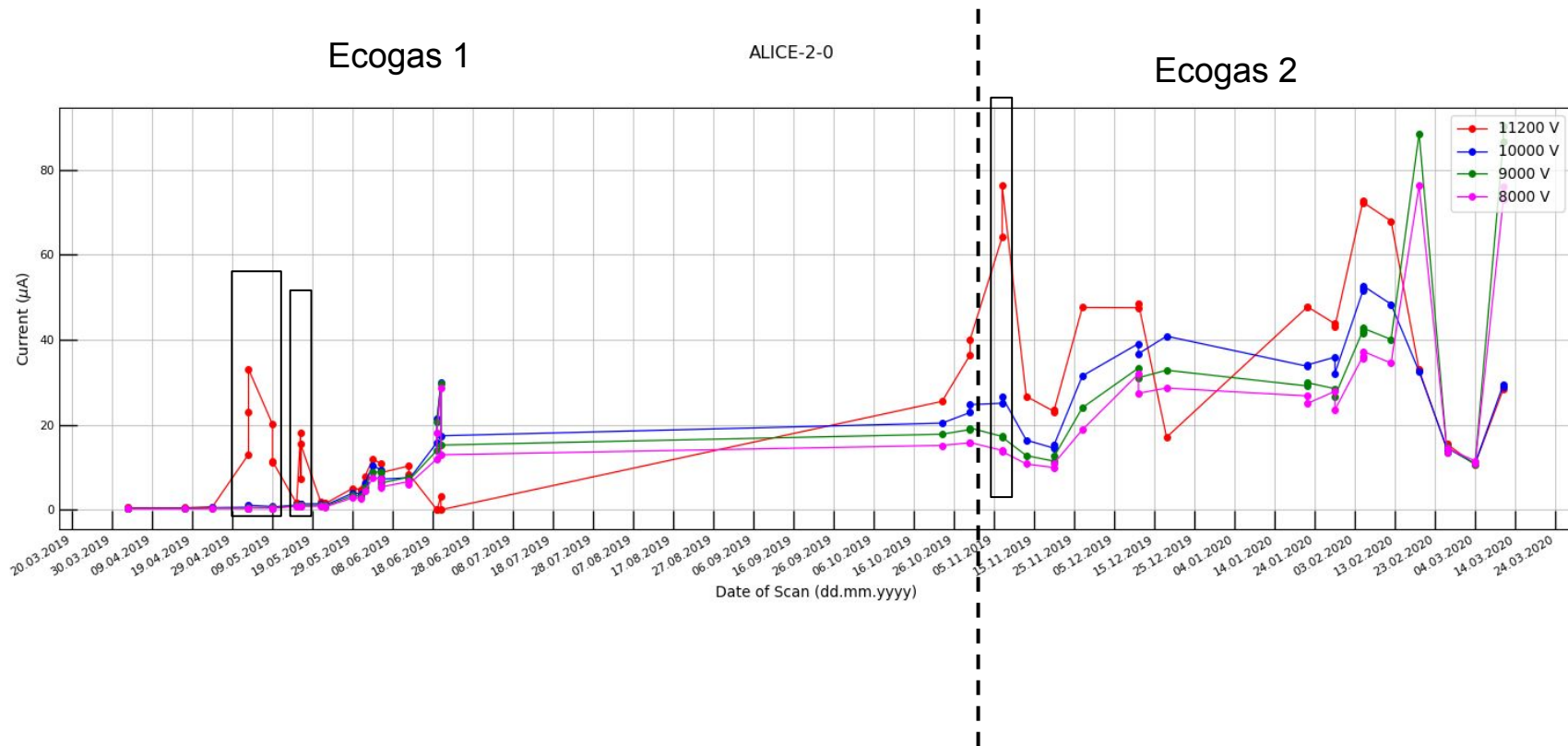


# CMS-KODEL chamber (TOP) (Source ON and OFF runs included)



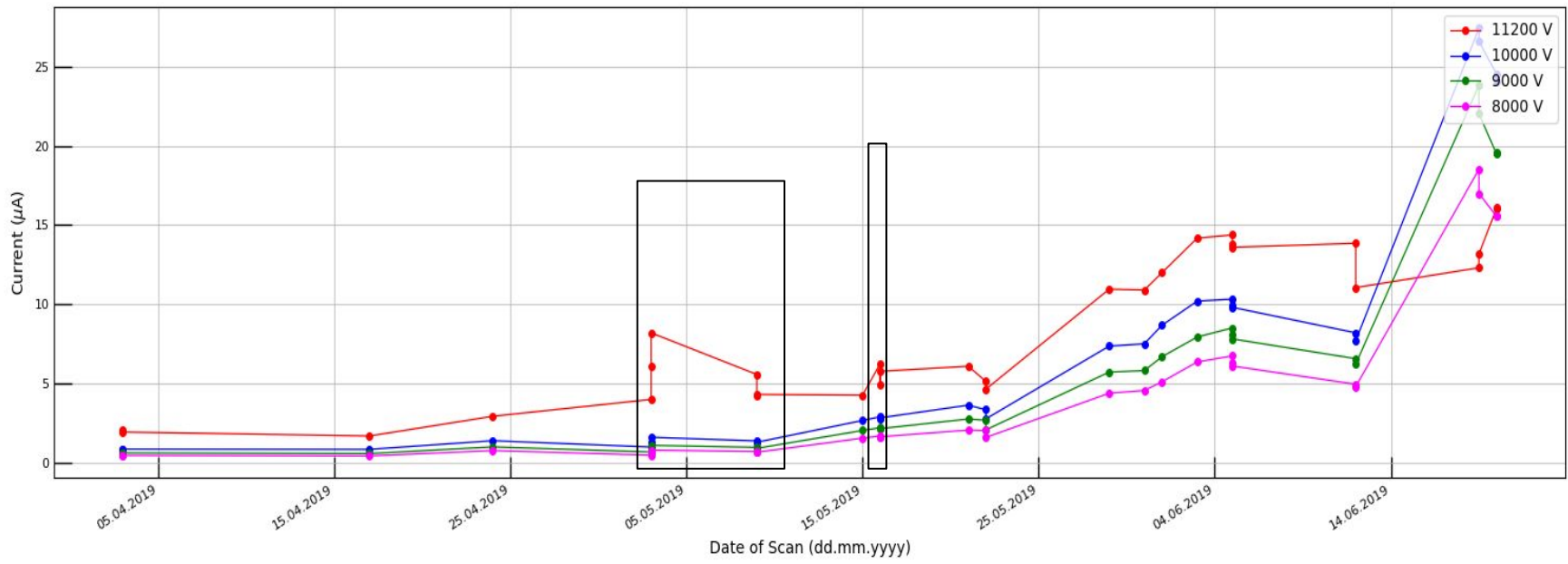


# ALICE chamber (Source ON and OFF runs included)



## Ecogas 1

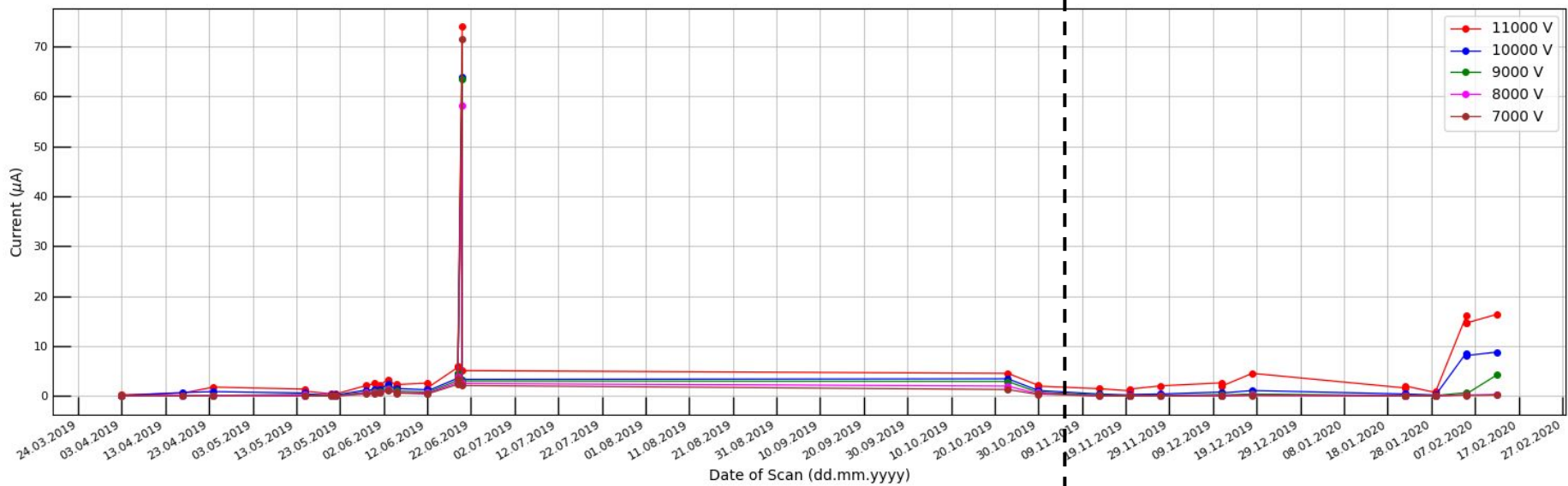
ATLAS-2-0



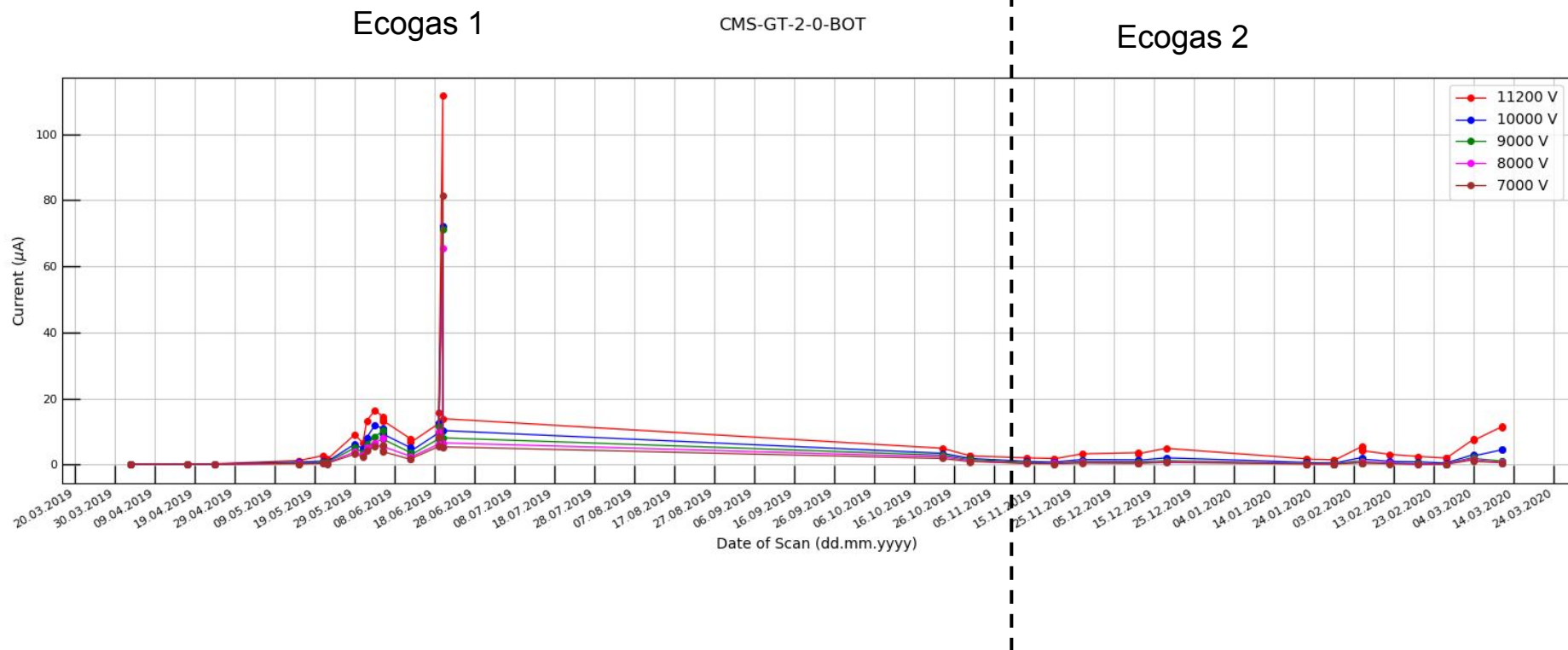
Ecogas 1

EPDT-RPC-3

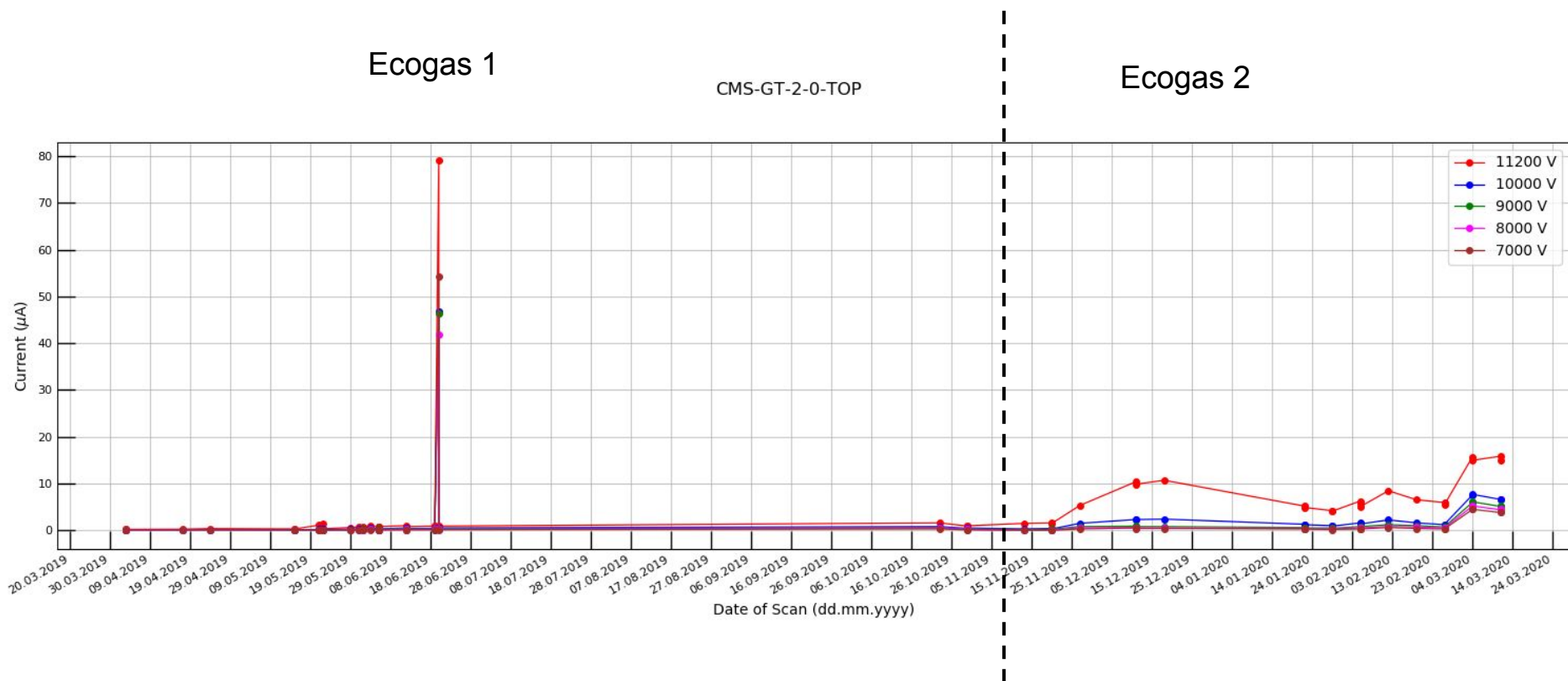
Ecogas 2



# CMS-GT chamber (BOT) - Source OFF with run 45



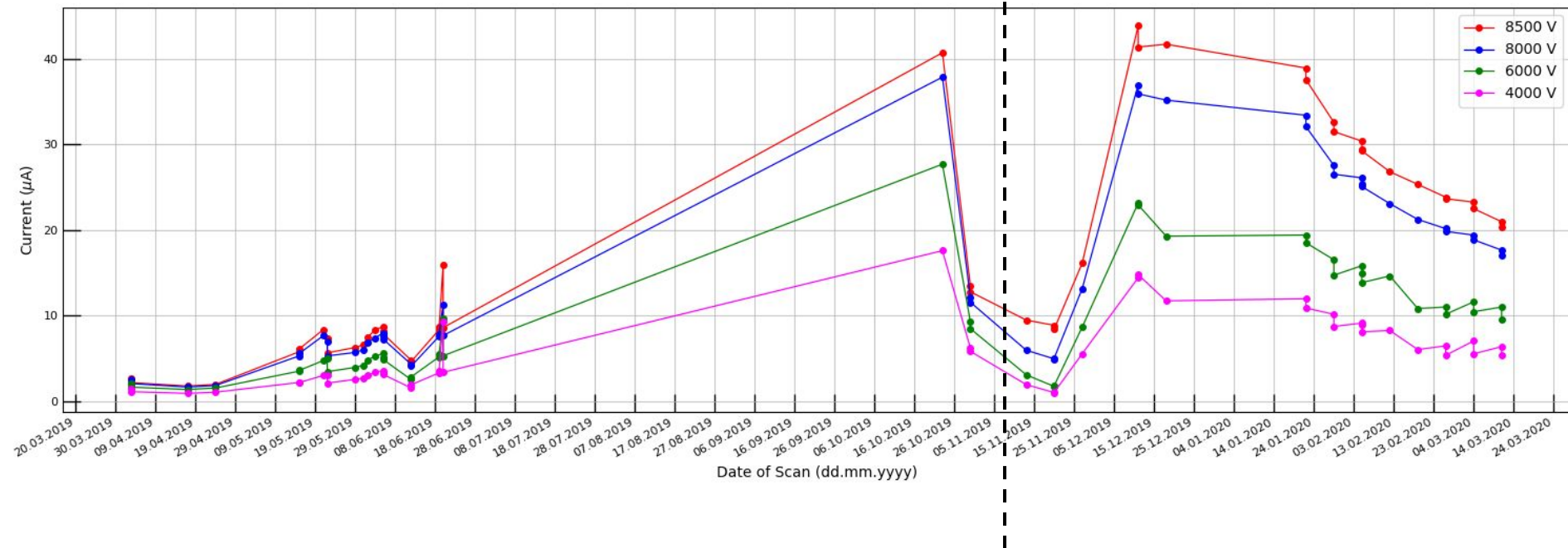
# CMS-GT chamber (TOP) - Source OFF with run 45



Ecogas 1

CMS-KODEL-1-4-BOT

Ecogas 2

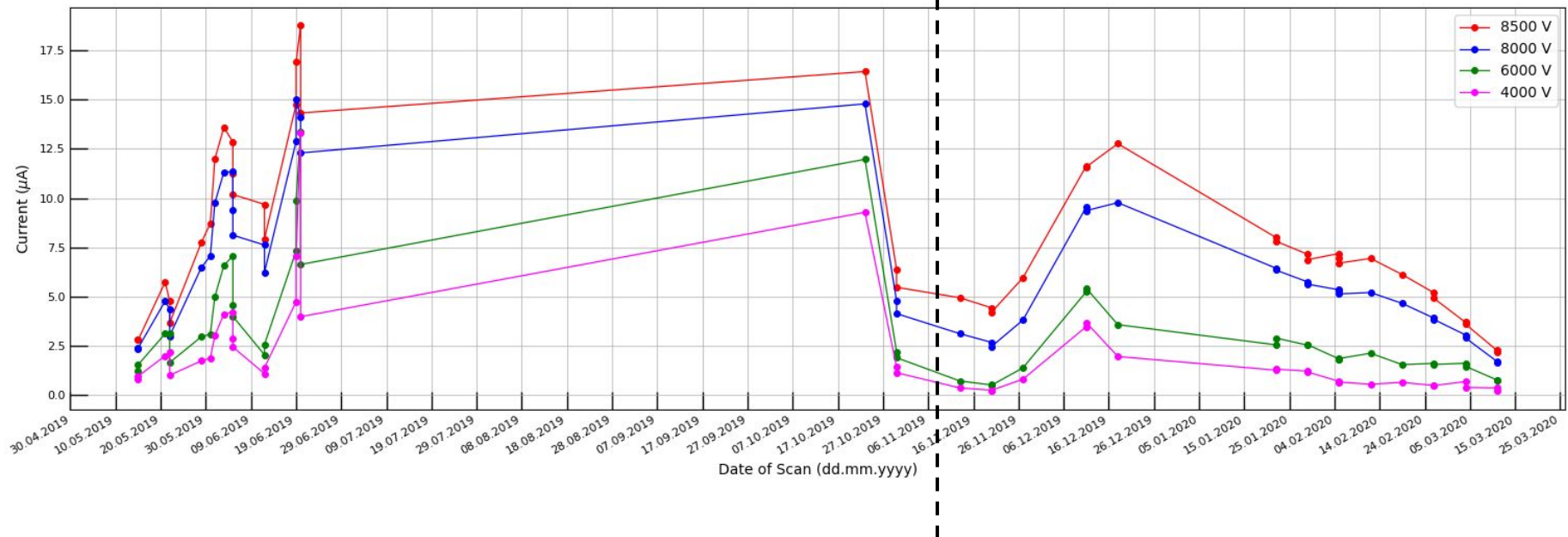


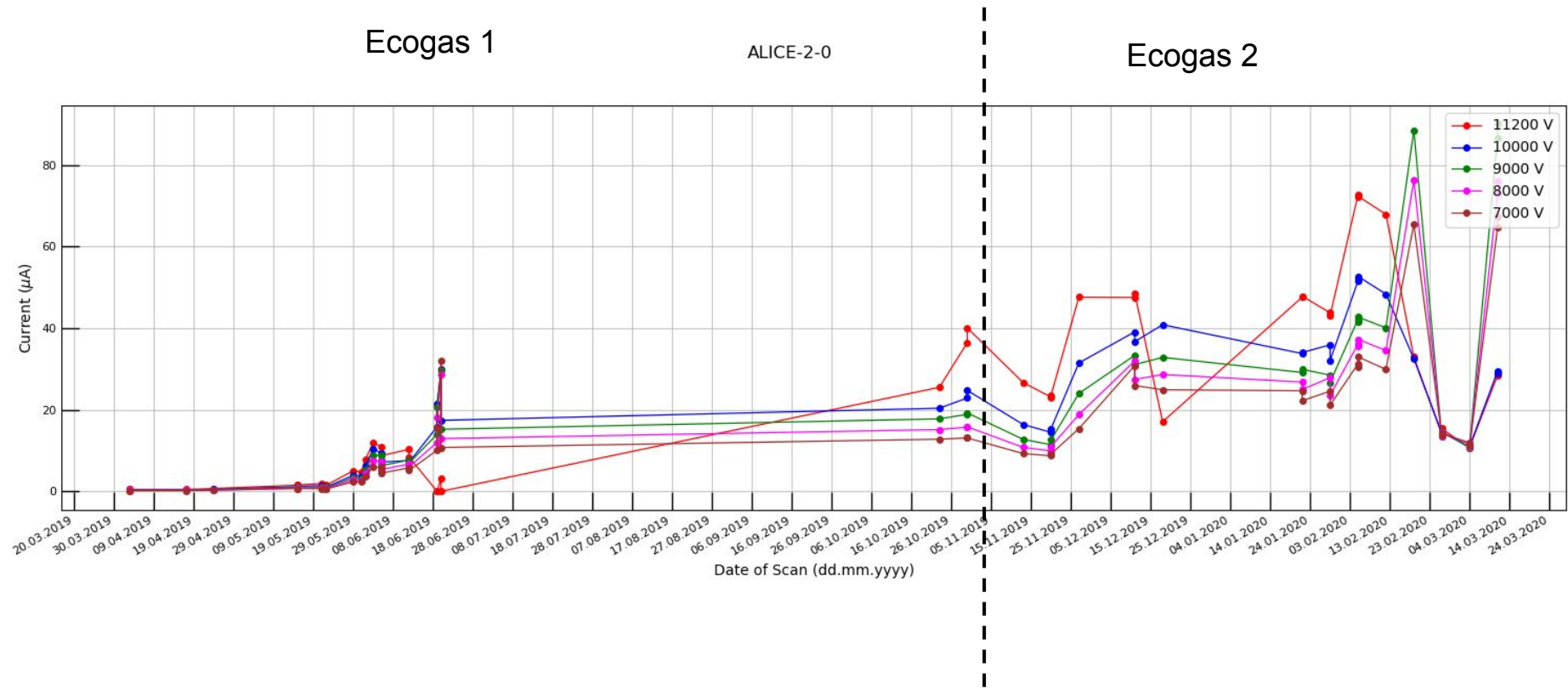
# CMS-KODEL chamber (TOP) - Source OFF with run 45

Ecogas 1

CMS-KODEL-1-4-TOP

Ecogas 2







## Ecogas 1

ATLAS-2-0

