



**NICOLAUS COPERNICUS
UNIVERSITY
IN TORUŃ**

Faculty of Physics, Astronomy
and Informatics

Double-Beam Surprises

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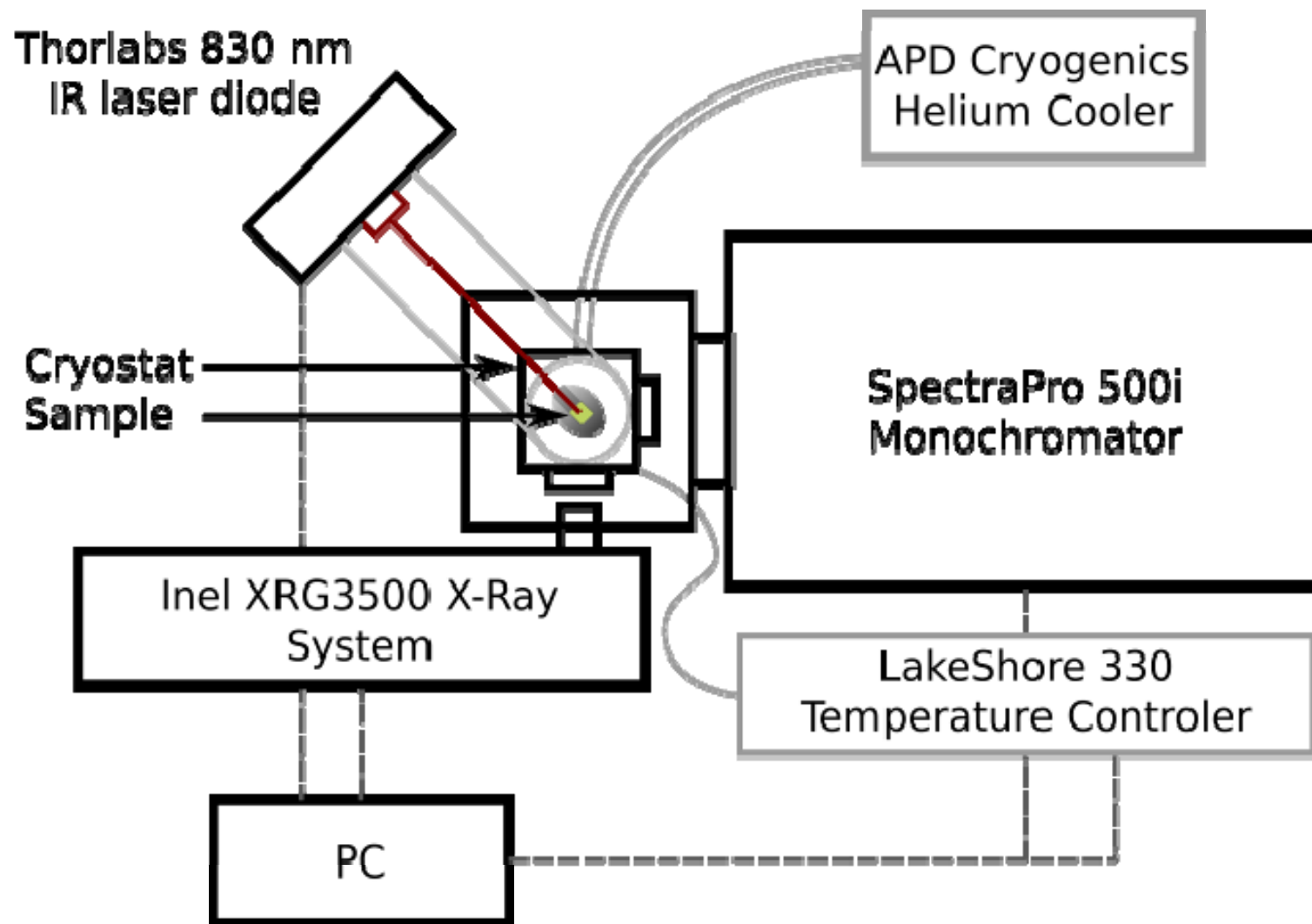
1. Experiment

Set-up in current configuration



1. Experiment

Set-up scheme

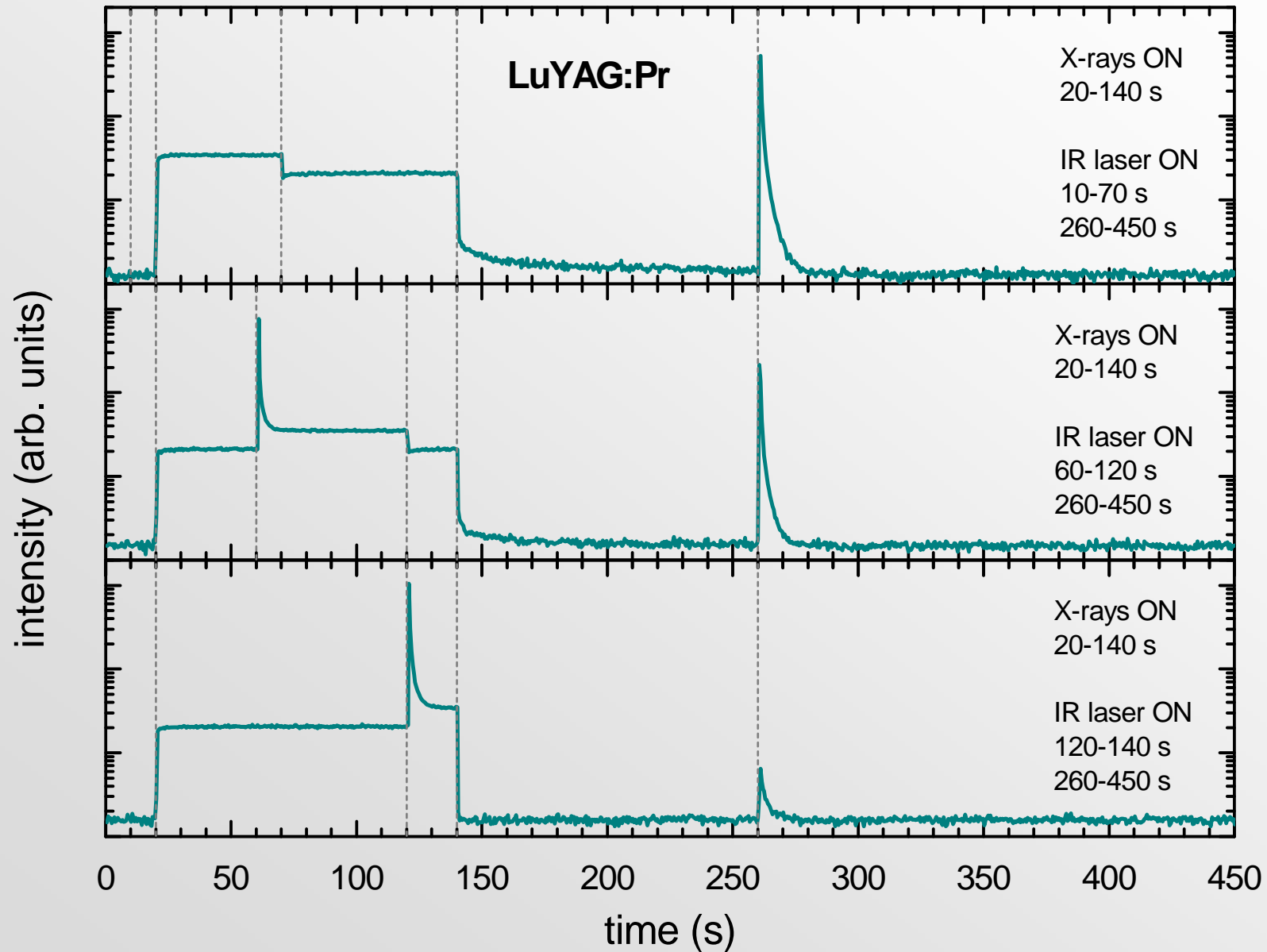


2. Results

Double-beam freeze-frames for LuYAG:Pr (2016)



UMK
WFAIS

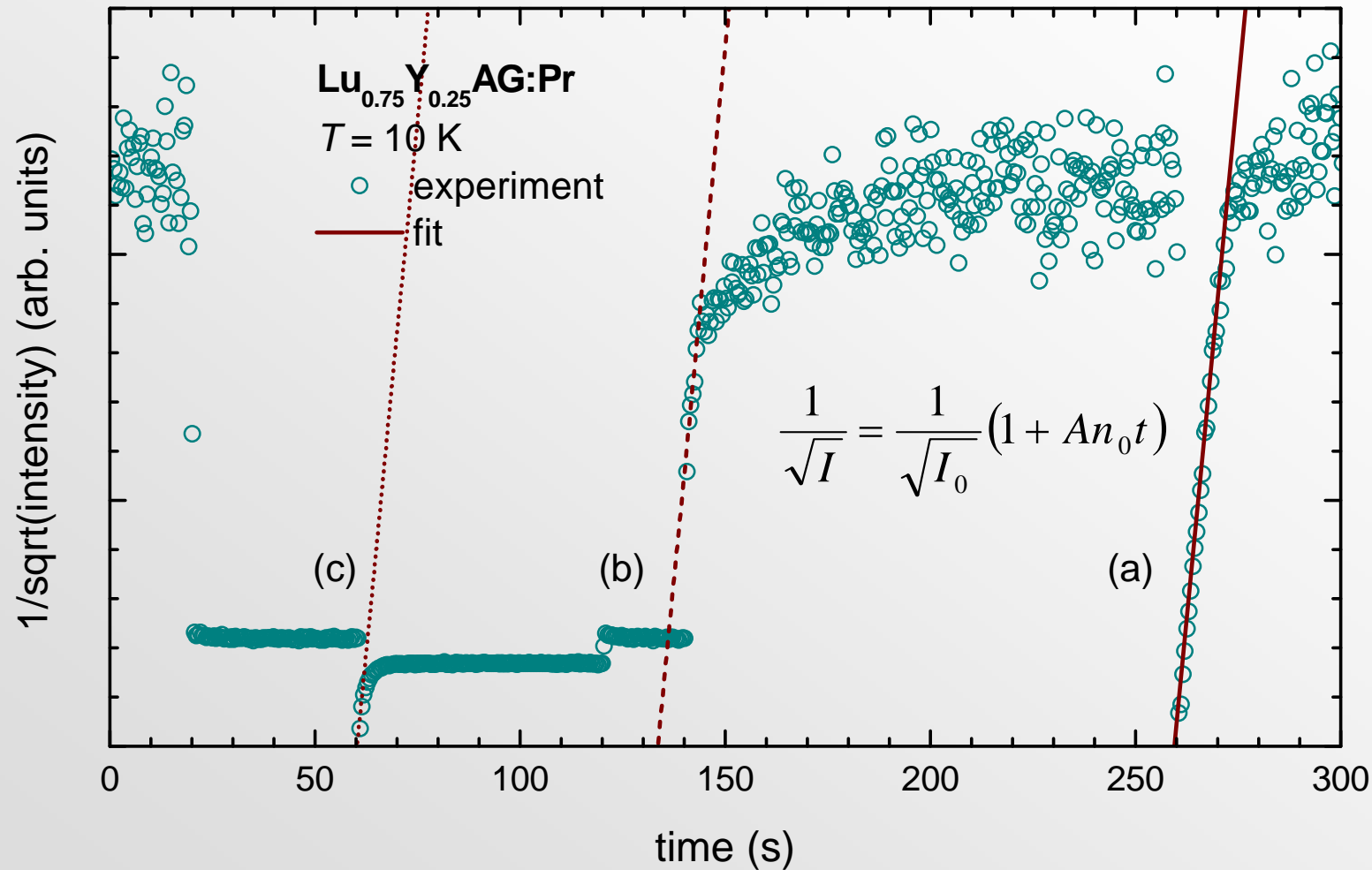


2. Results

Bimolecular kinetics in LuYAG:Pr (2016)



UMK
WFAIS

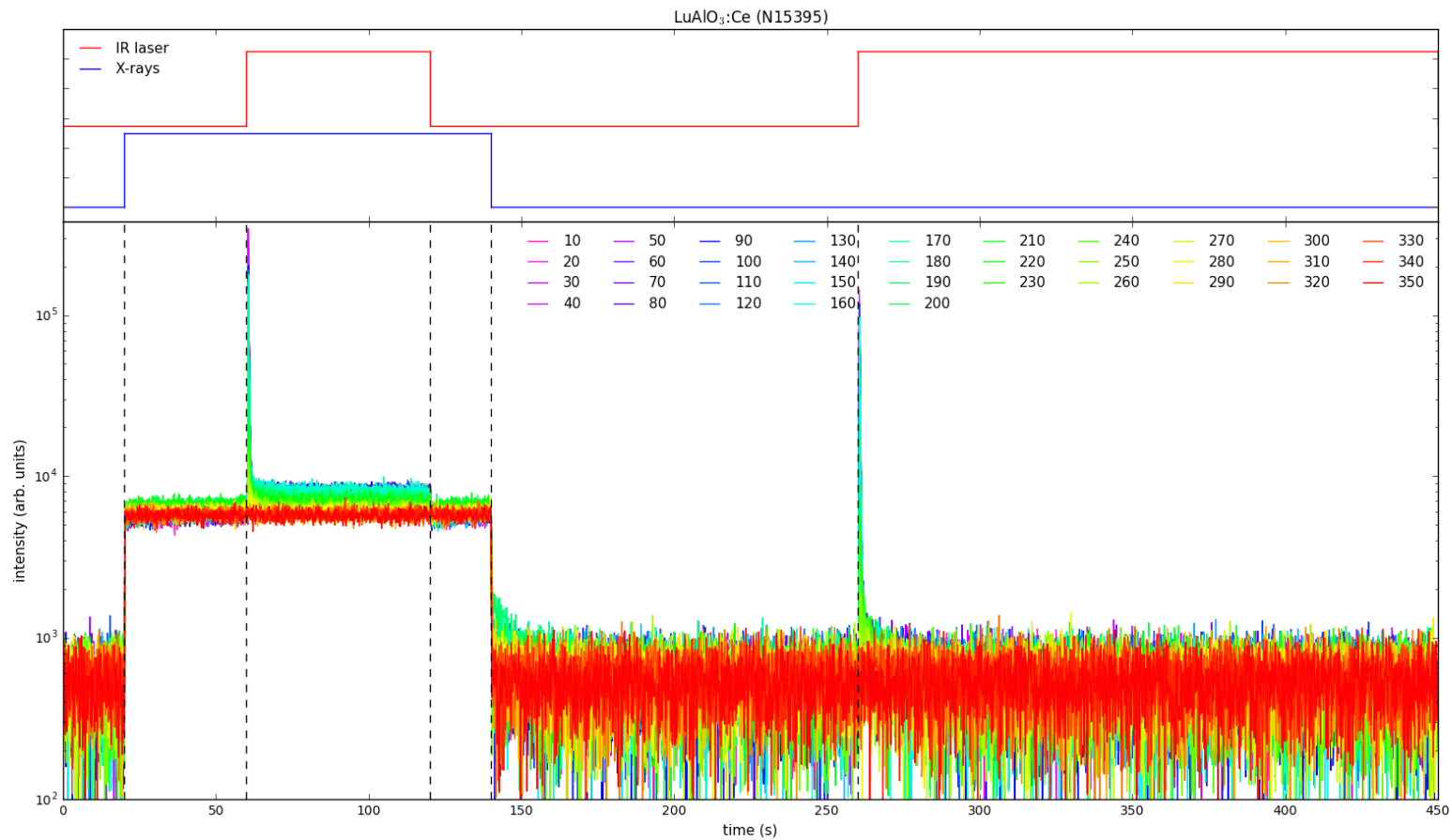


- the IR-stimulated decay (a) described by a bimolecular decay law (two recombining species: e_c and Pr⁴⁺)
- a bimolecular component also present in the decay (c), but not in (b)



2. Results

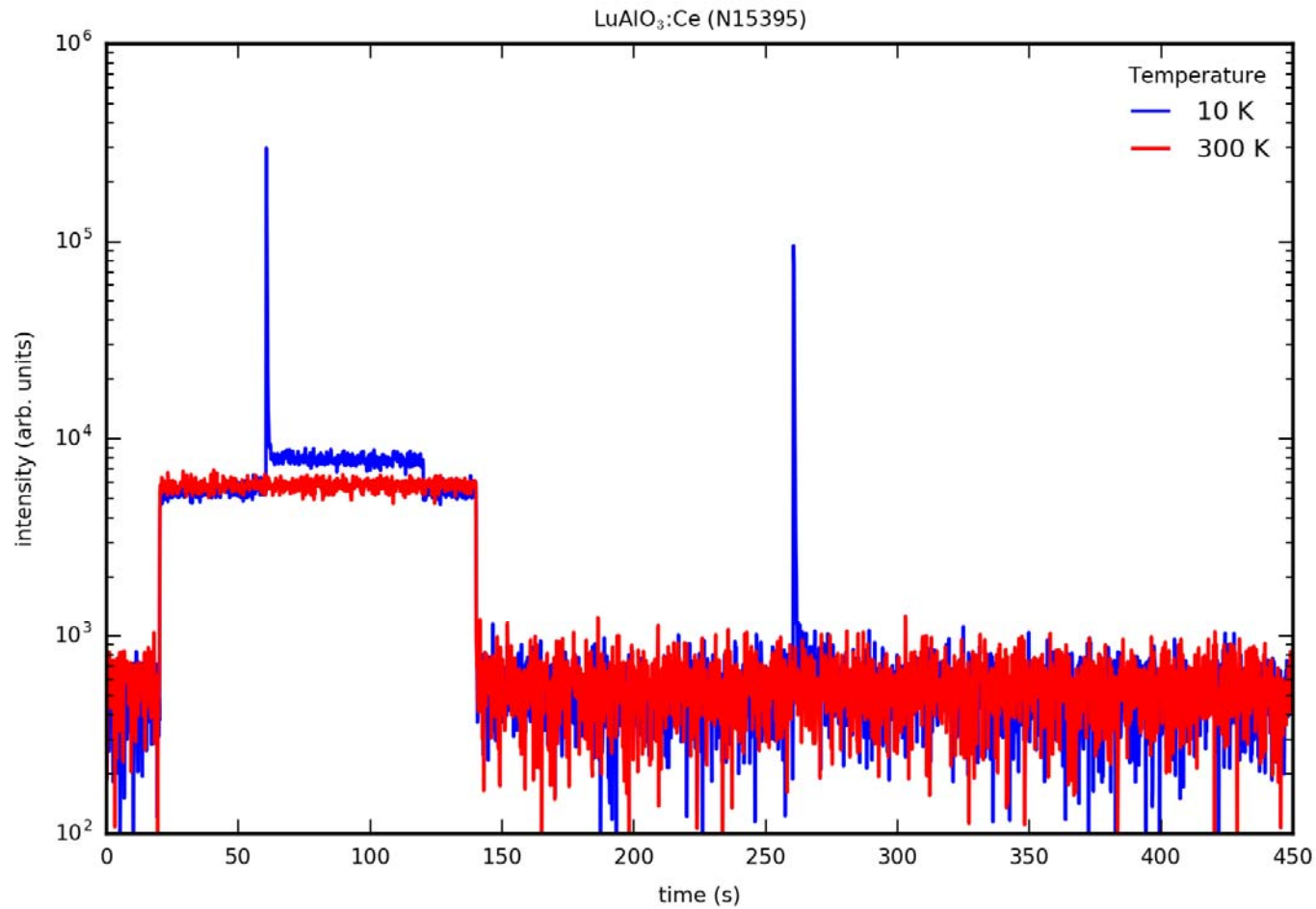
LuAlO₃:Ce (2018)





2. Results

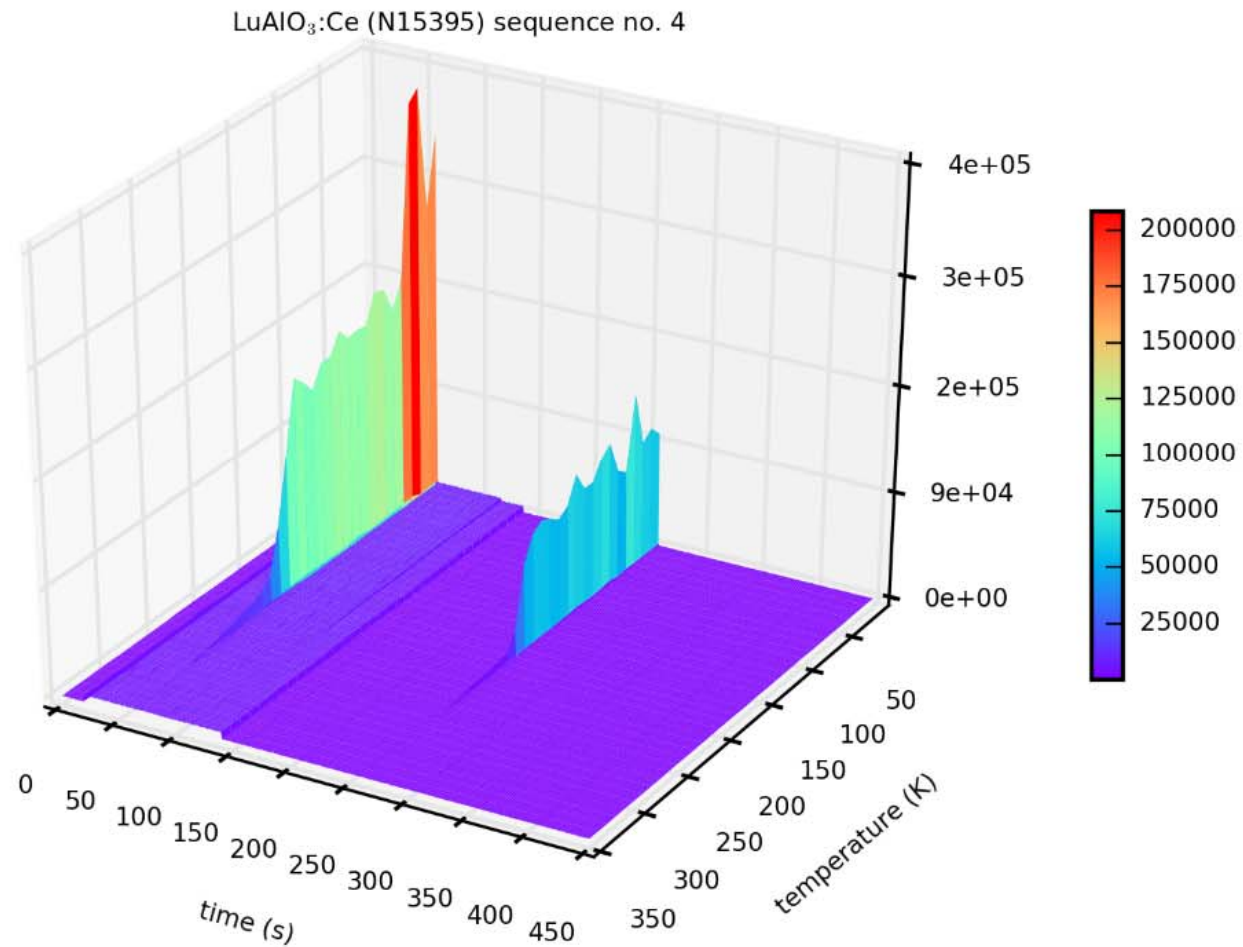
LuAlO₃:Ce (2018)





2. Results

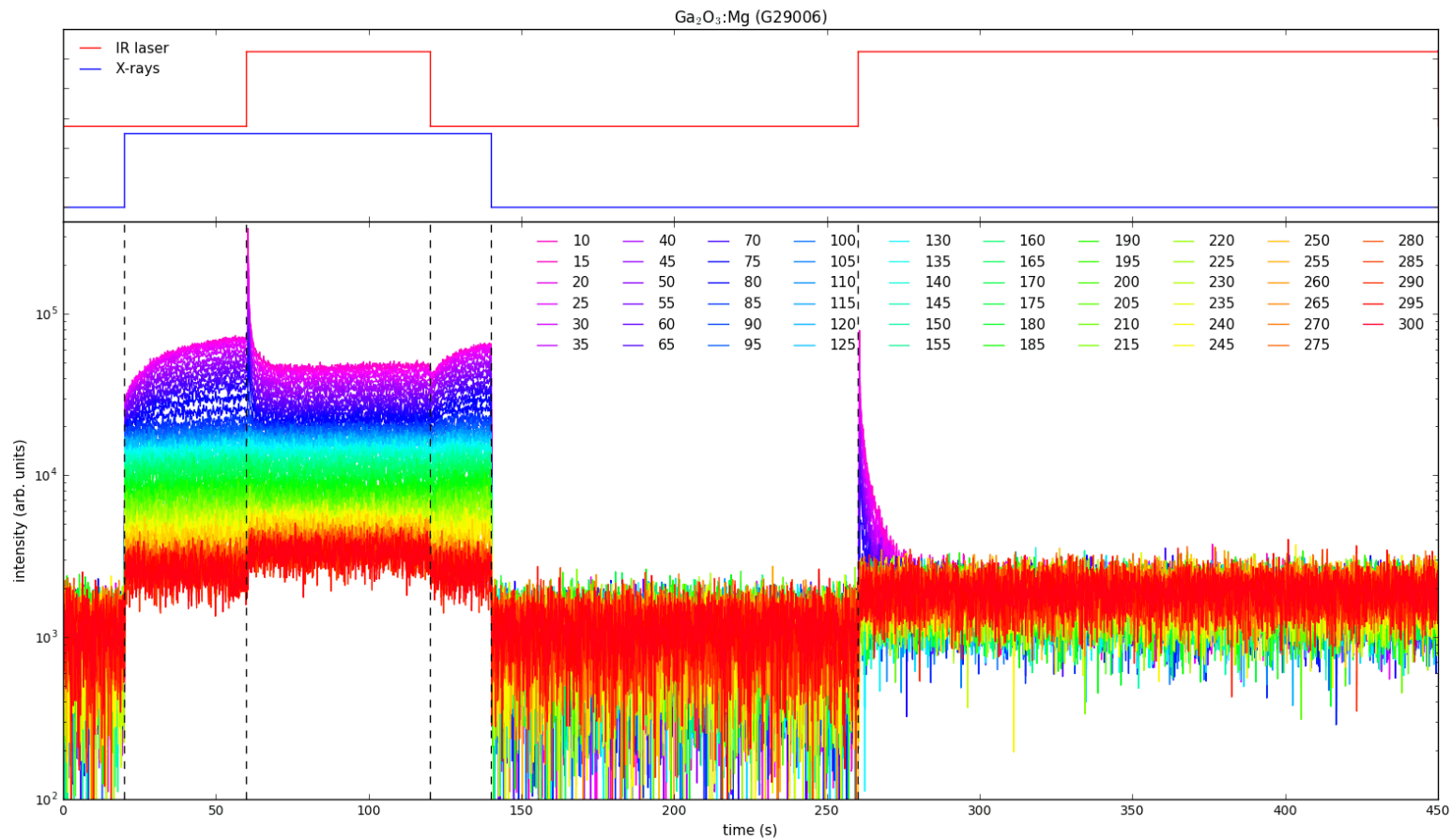
LuAlO₃:Ce (2018)





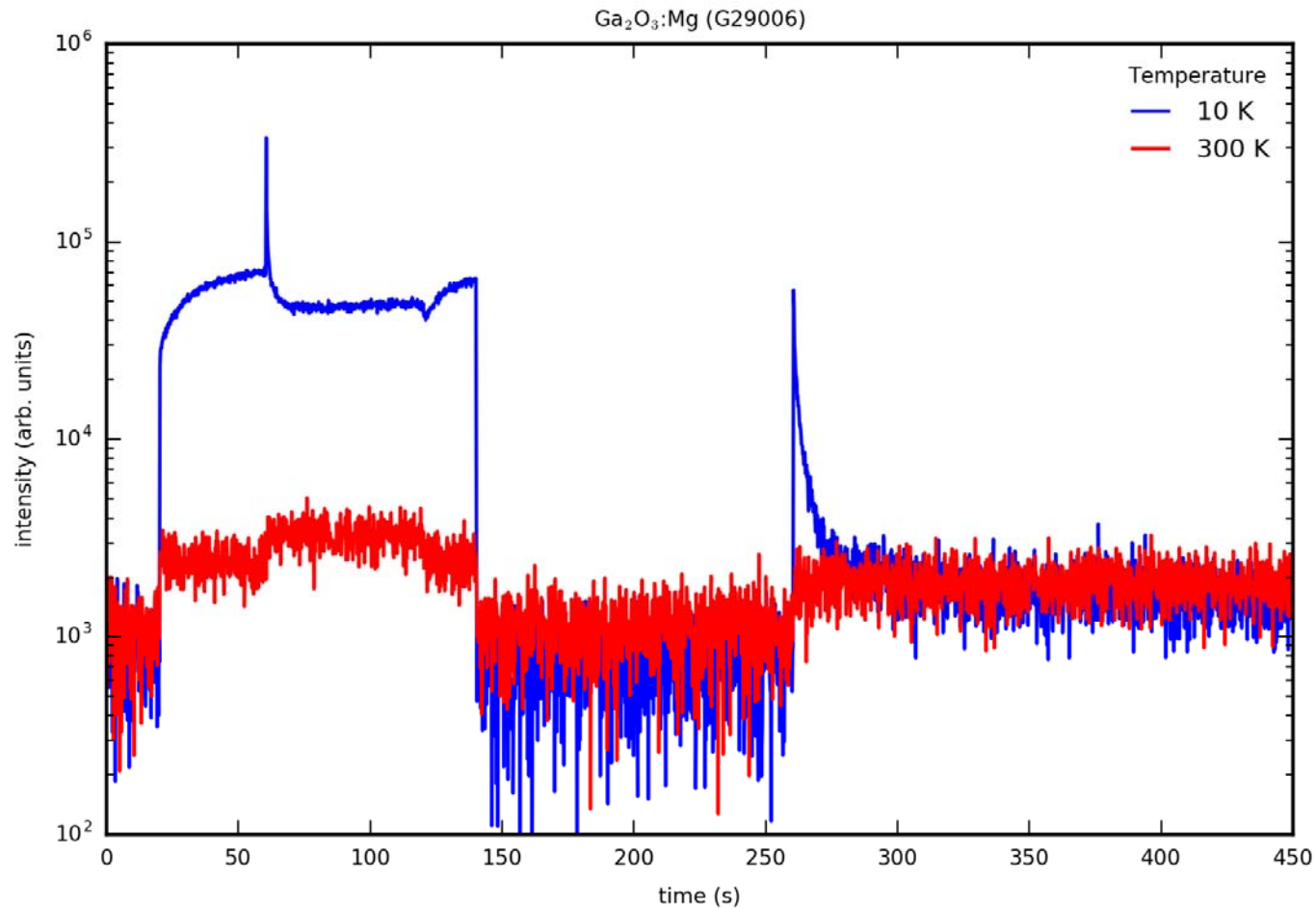
2. Results

β -Ga₂O₃:Mg – insulator (2018)



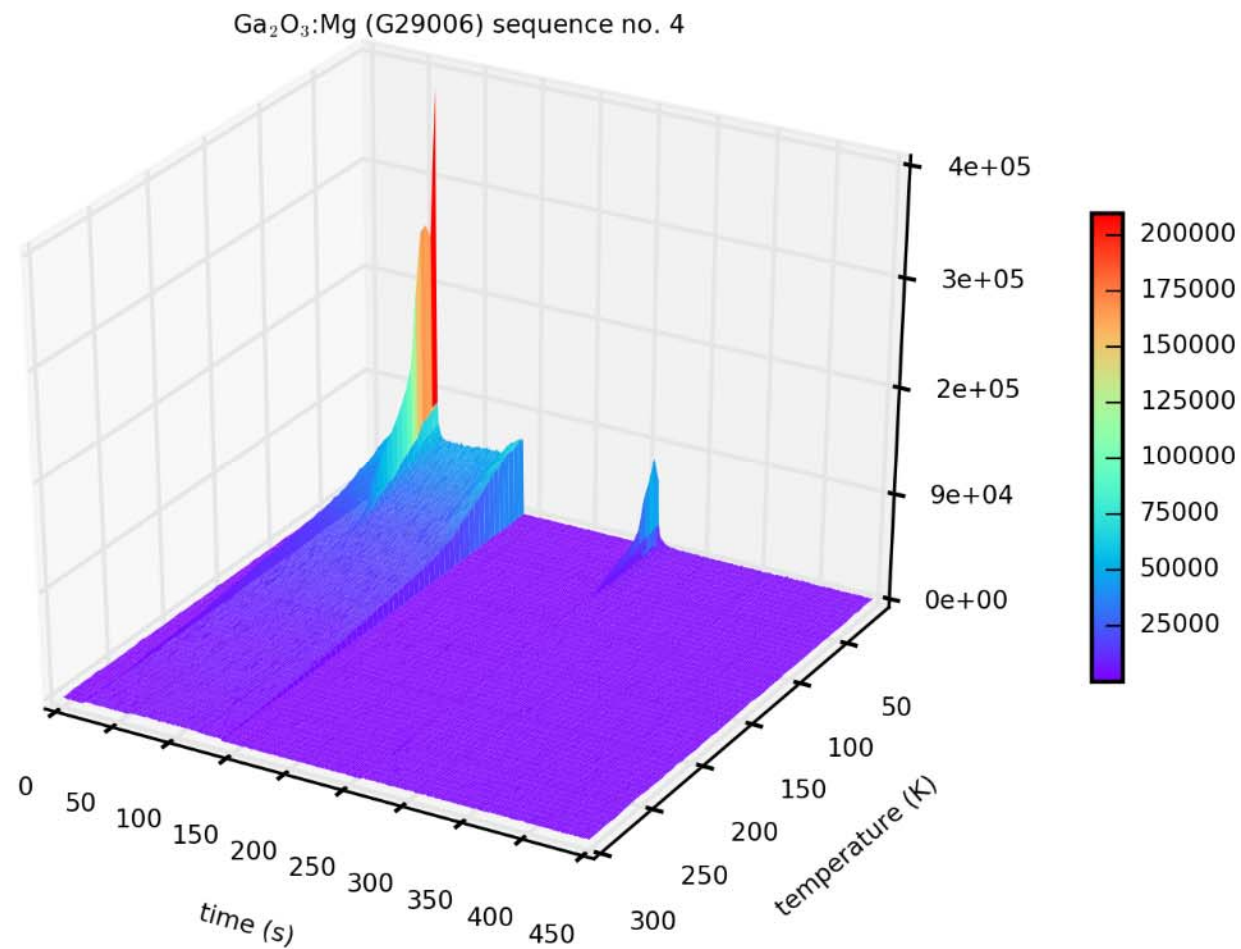
2. Results

β -Ga₂O₃:Mg – insulator (2018)



2. Results

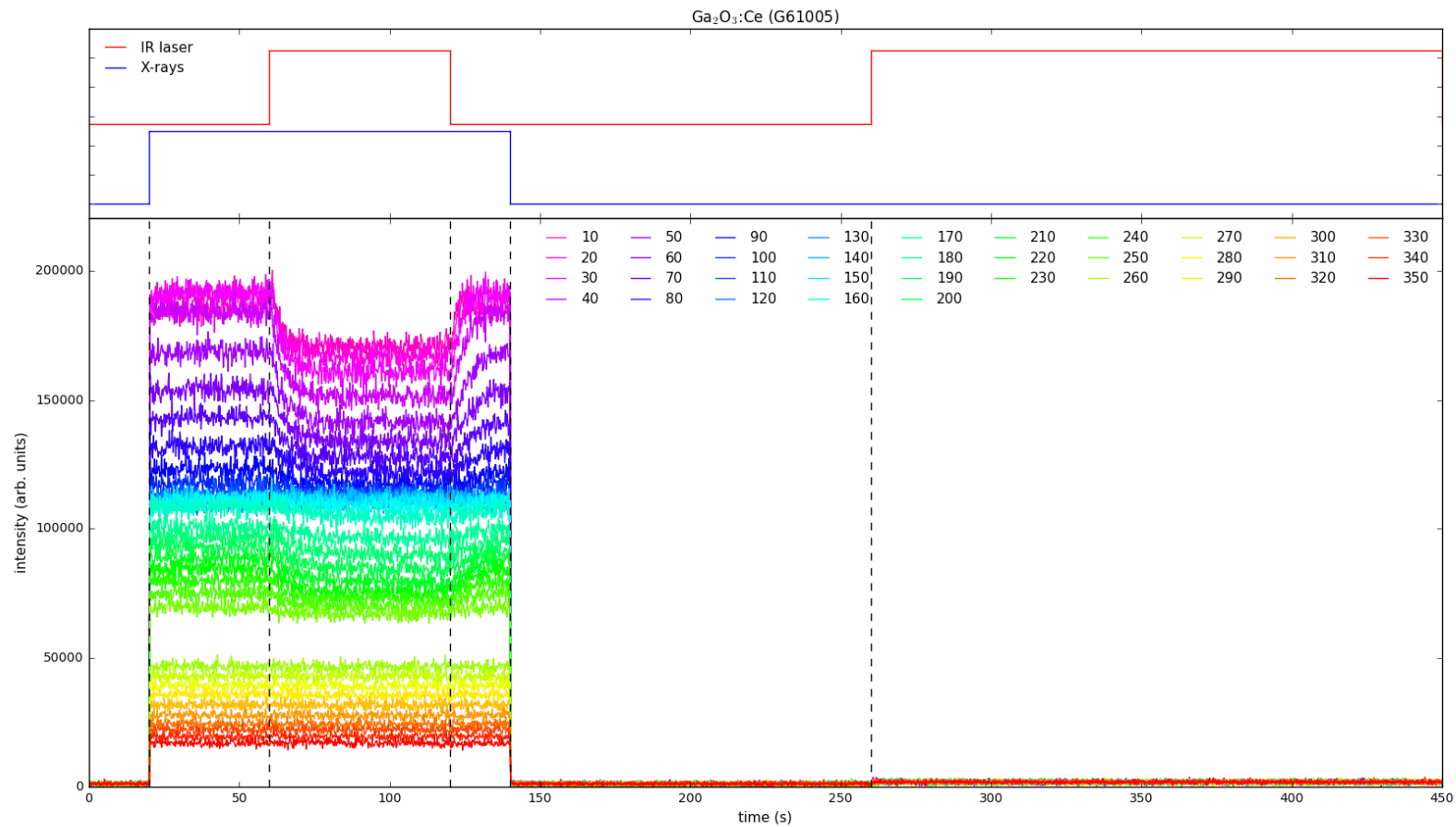
β -Ga₂O₃:Mg – insulator (2018)





2. Results

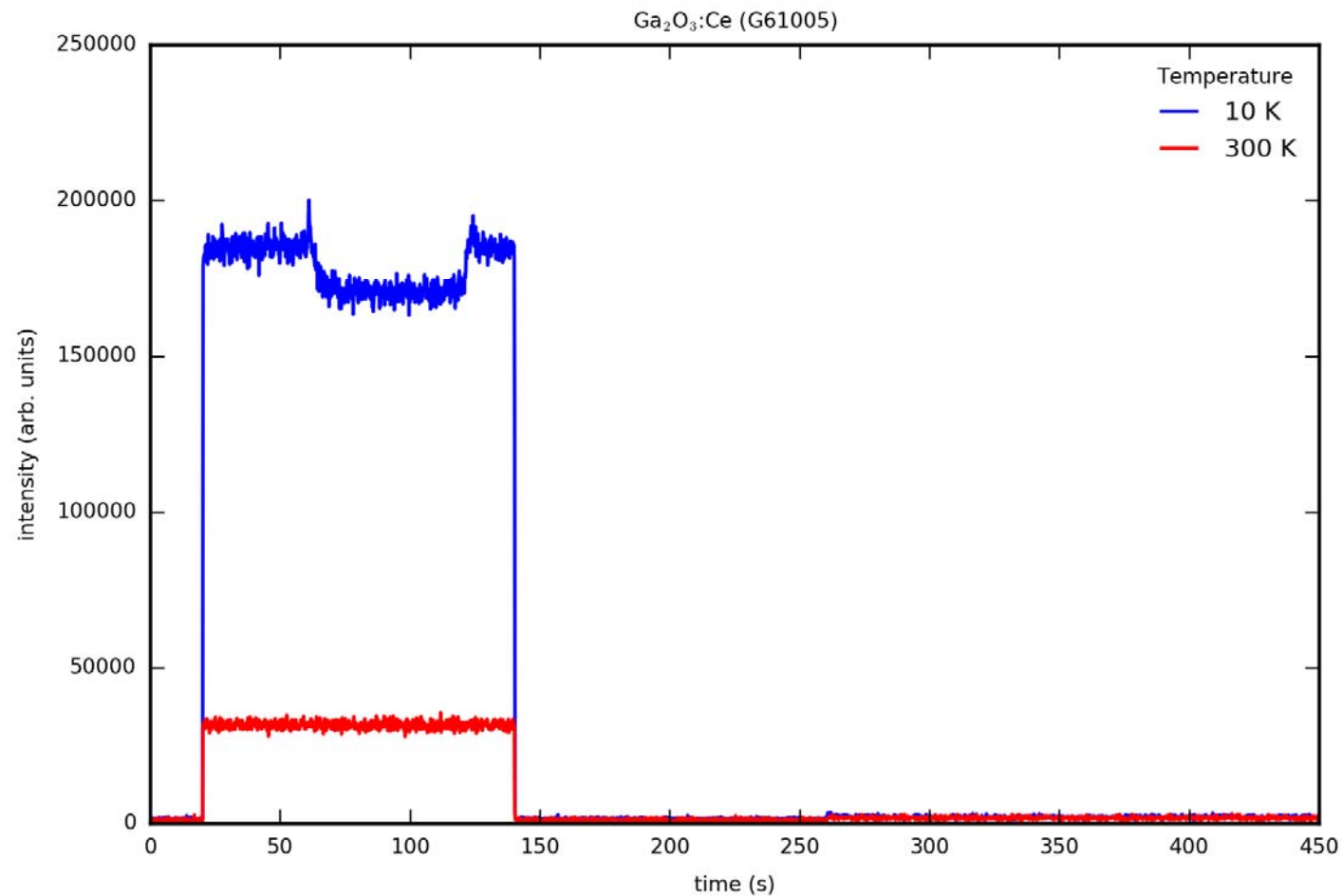
β -Ga₂O₃:Ce – semiconductor (2018)





2. Results

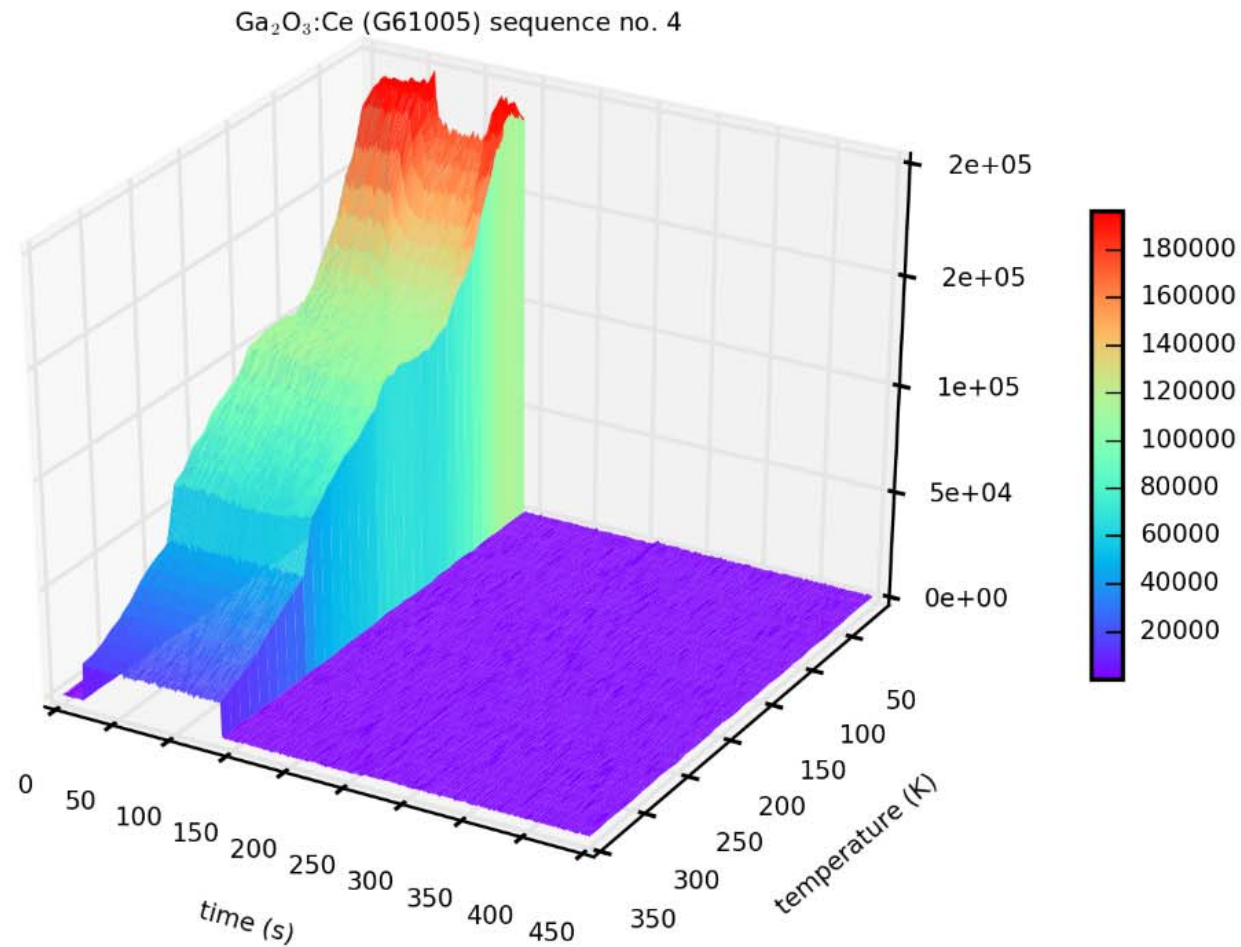
β -Ga₂O₃:Ce – semiconductor (2018)





2. Results

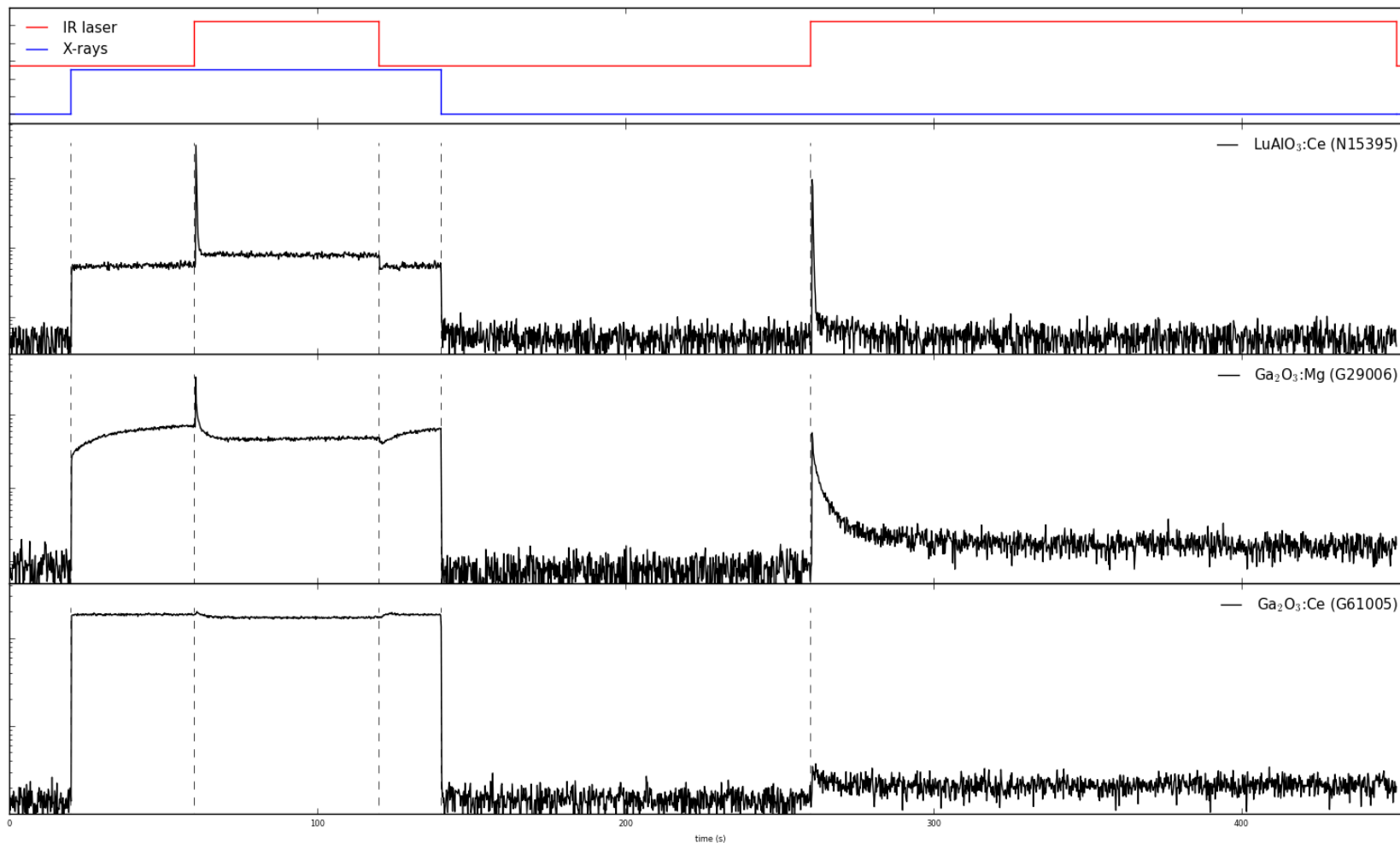
β -Ga₂O₃:Ce – semiconductor (2018)





2. Results

A comparison (2018)





3. Acknowledgments

NCN

- Polish National Science Centre (NCN):
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 - Institute of Physics, Nicolaus Copernicus University in Toruń
 - Leibniz Institute for Crystal Growth, Berlin



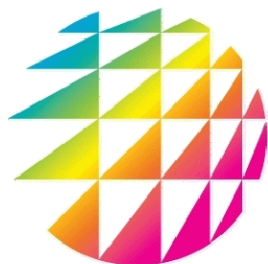
N A R O D O W E C E N T R U M N A U K I



5. Acknowledgments

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