### **Review report**

The paper entitled: "SYNTHESIS AND PROPERTIES OF HIGH-TEMPERATURE CERAMIC SUPERCONDUCTORS BASED ON OXIDE COMPOUNDS" authored by S. TURSYNTAY addresses very interesting data on the formation of the superconducting phase 2223 in the Bi<sub>1.6</sub>Pb<sub>0.4</sub>Sr<sub>2</sub>Ca<sub>4</sub>Cu<sub>5</sub>O<sub>y</sub> composition occurs in a lower and wider temperature range (843–850 °C).

This paper contains English typos and should be improved.

#### Minor corrections:

1) The abstract should be rewritten to:

"The present study summarized that the sample  $Bi_{1.6}Pb_{0.4}Sr_2Ca_4Cu_5O_y$  (2245) has superconducting high-temperature phase 2223 crystallizes. It was found that the formation of the superconducting phase 2223 in the  $Bi_{1.6}Pb_{0.4}Sr_2Ca_4Cu_5O_y$  composition occurs in a lower and wider temperature range (843–850 °C) compared to the  $Bi_{1.6}Pb_{0.4}Sr_2Ca_2Cu_3O_y$  (2223) composition".

- 2) In the Materials and research methods section, please define what is HTSC? You can correct it like: high-temperature superconductors (HTSC).
- 3) In the Results and discussion section, please correct the sentence: The results of studying the phase composition of superconducting ceramics  $Bi_{1.6}Pb_{0.4}Sr_2Ca_{n-1}Cu_nO_y$  (n = 2, 3, 5) by the X-ray diffraction method are shown in Fig. 1....to:

The characterization of the  $Bi_{1.6}Pb_{0.4}Sr_2Ca_{n-1}Cu_nO_y$  (n = 2, 3, 5) superconducting ceramics by XRD diffraction in order to define the composition. The corresponding patterns are illustrated in the Fig. 1.

Rachid Amronese

### REVIEW

# For Syllabus of PHY717 - «Functional problems of materials science»

Lecturer: Kudaibergenov Kenes Kakimovich – PhD Doctor, Head of the MN&EP Department

Educational program: 7M07103 - "Materials Science and technology of new

materials"

## Name of the lesson: PHY717 - «Functional problems of materials science»

This syllabus contains the purpose and objectives of the course, characteristics and learning outcomes. The calendar and thematic plan contains all lectures and laboratory works for the 15 week course, as well as list of applicable textbooks, SIS, tasks and the time of their implementation. Literature is diverse and appropriate for this course.

In addition, the syllabus clearly sets out the rating and criteria for evaluation, academic discipline and ethics policy. The rating criteria is detailed and unambiguously evaluates students accomplishments.

Lecture topics meet the basic requirements of the course. All the basic concepts and definitions are covered. The topics of laboratory work also coincide with the topics of lectures.

Considering that modeling itself is a broad term, the proposal is to specify the exact field to which modeling refers in the name of the course, so that the interested parties know exactly what is taught in the course.

In conclusion, this syllabus is designed in a highly professional way and enables students to acquire necesary knowledge and skills.

### Reviewer:

Chouaib Doukkali University, El Jadida, Morocco PhD, Professor

Rachid Amrousse

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15.11.2022

### REVIEW

For Syllabus of PHY 715 - "Physico-chemical methods for studying materials"

Lecturer: PhD in Chemistry, Professor Nazhipkyzy Meruyert

Educational program 7M07103 - "Material science and technology of new materials" Name of the lesson: PHY 715 - "Physico-chemical methods for studying materials"

This curriculum contains all the necessary elements that enable students to acquire the necessary knowledge and skills within the framework of physical and chemical methods of materials. The program contains the goal and objectives of the course, characteristics and clear learning outcomes.

The calendar and thematic plan contains all lectures and laboratory works for the one semester (15 weeks), a list of applicable textbooks, SIS, tasks and the time of their implementation.

In addition, the syllabus clearly and clearly sets out the rating and criteria for evaluation, academic discipline and ethics policy.

Lecture topics meet the basic requirements of the course. All the basic concepts and definitions are covered. The topics of laboratory work also coincide with the topics of lectures.

In conclusion, this syllabus is designed in a professional way and I recomend it for future use.

Reviewer:

Chouaib Doukkali University, El Jadida, Morocco

PhD, Professor Rachid Amrousse

signature

15.11.2022