

CONFERENCES AND SYMPOSIA

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Problems of Condensed Matter Physics (Scientific Session of the Physical Sciences Division of the Russian Academy of Sciences, (PSD RAS) on April 23, 2025)

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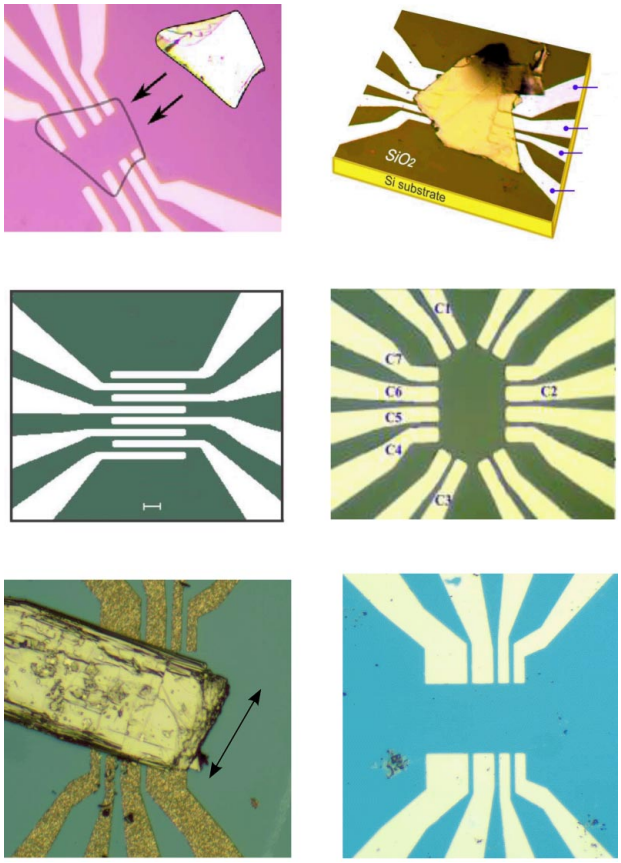
On April 23, 2025, at 2:00 PM, the Scientific Session of the Physical Sciences Division of the Russian Academy of Sciences (PSD RAS) "Problems of Condensed Matter Physics" was held in the conference hall of the P.N. Lebedev Physical Institute of the Russian Academy of Sciences (Leninskii Prospekt 53, Moscow).

The agenda, announced on the PSD RAS website (https://gpad.ac.ru), included the following presentations:

1. **Leonov I.V.** (M.N. Mikheev Institute of Metal Physics (IMP), Ural Branch of the Russian Academy of Sciences, Yekaterinburg, Russian Federation). "Nickelates: A New Class of High-Temperature Superconductors."
2. **Straumal B.B.** (Osipyan Institute of Solid State Physics of the Russian Academy of Sciences, Chernogolovka, Moscow Region, Russian Federation). "Phase Transformations at Internal Interfaces and with Their Participation."
3. **Deviatov E.V.** (Osipyan Institute of Solid State Physics, Russian Academy of Sciences, Chernogolovka, Moscow Region, Russian Federation). "Topological Semimetals: Surface Transport and Spin Effects."
4. **Kulik L.V.** (Osipyan Institute of Solid State Physics, Russian Academy of Sciences, Chernogolovka, Moscow Region, Russian Federation). "Exciton Condensates in Integer and Fractional Hall Dielectrics."
5. **Demishev S.V.** (Vereshchagin Institute of High Pressure Physics, Russian Academy of Sciences, Troitsk, Moscow, Russian Federation). "Giant Increase in the Curie Temperature in Griffiths Phases: The Case of the Noncentrosymmetric Magnet $Mn_{1-x}Rh_xSi$."
6. **Ryzhov V.N.** (Vereshchagin Institute of High Pressure Physics, Russian Academy of Sciences, Troitsk, Moscow, Russian Federation). "Physics of Phase Transitions in Two Dimensions: Beyond the BKT."

Reviews based on presentations 2–6 are published further in this issue of *Physics-Uspekhi* (*Uspekhi Fizicheskikh Nauk*) (see Refs [1–5]).



A method for fabricating a specified configuration of contacts to three-dimensional conducting flakes of topological semimetals (see [2] for details).

References

1. Straumal B B, Kogtenkova O A, Gornakova A S "Phase transformations at grain boundaries and with their participation" *Phys. Usp.* **69** (5) 420 (2026) DOI:10.3367/UFNe.2025.04.040018; "Fazovye prevrashcheniya na granitsakh zeren i s ikh uchastiem" *Usp. Fiz. Nauk* **196** 450 (2026)
2. Deviatov E V "Topological semimetals: surface transport and spin effects" *Phys. Usp.* **69** (5) 442 (2026) DOI:10.3367/UFNe.2025.04.039962; "Topologicheskie polumetally: poverkhnostnyi transport i spinovye effekty" *Usp. Fiz. Nauk* **196** 473 (2026)
3. Larionov A V, Gorbunov A V, Kulik L V "Exciton condensates in integer and fractional quantum Hall dielectrics" *Phys. Usp.* **69** (5) 457 (2026) DOI:10.3367/UFNe.2025.04.040008; "Eksitonnye kondensaty v tselochislennykh i drobnykh kvantovo-khollovskikh dielektrikov" *Usp. Fiz. Nauk* **196** 490 (2026)
4. Demishev S V, Brazhkin V V, Bokov A V, Volkova O S, Eremina R M, Krasnorussky V N, Shamova I K, Tsvyashchenko A V "Griffiths phases and anomalous increase in the Curie temperature in systems with magnetic disorder" *Phys. Usp.* **69** (5) 472 (2026) DOI:10.3367/UFNe.2025.04.039966; "Fazy Griffitsa i anomal'noe uvelichenie temperatury Kyuri v sistemakh s magnitnym besporyadkom" *Usp. Fiz. Nauk* **196** 506 (2026)
5. Ryzhov V N, Brazhkin V V, Tareyeva E E, Fomin Yu D, Tsiok E N "Physics of phase transitions in two dimensions: Berezinskii–Kosterlitz–Thouless and beyond" *Phys. Usp.* **69** (5) 501 (2026) DOI:10.3367/UFNe.2025.04.040000; "Fizika fazovykh perekhodov v dvukh izmereniyakh: za predelami Berezinskogo–Kosterlitsa–Taulesa *Usp. Fiz. Nauk* **196** 537 (2026)