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DISSIPATIVE STRUCTURES FORMATION UNDER ACTION EXTREMELY HIGH FREQUENCY ELECTROMAGNETIC FIELD ON WATER WITH DYE

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Historical aspects

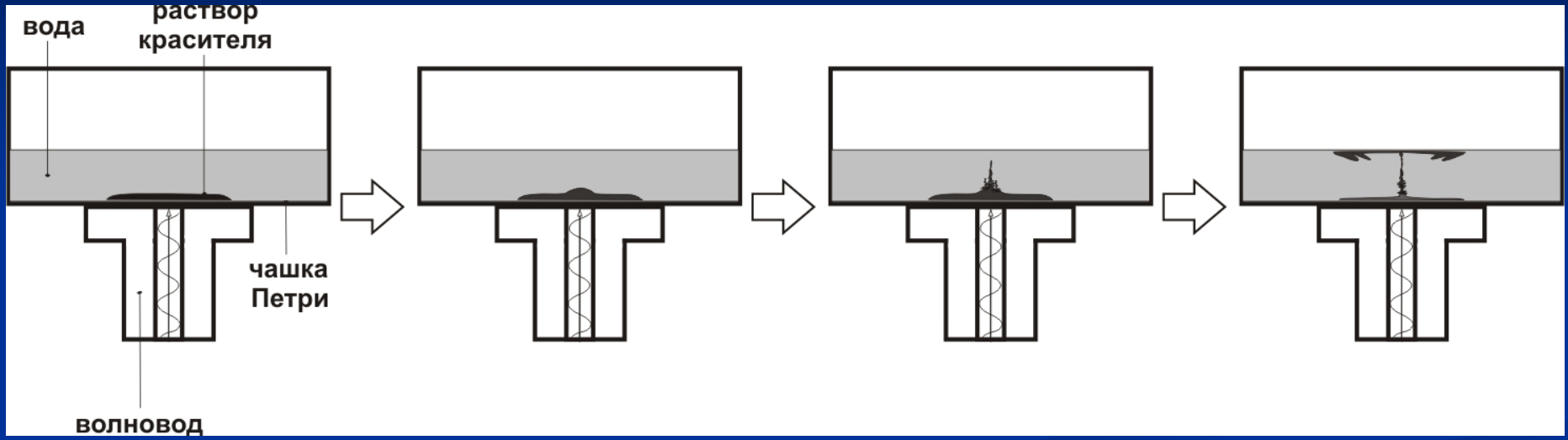
DISSIPATIVE STRUCTURES IN WATER

was revealed using heat-vision technology:

Khizhnyak E.P., Ziskin M.C. Temperature Oscillation in Liquid Media Caused by Continuous (Nonmodulated) Millimeter Wavelength Electromagnetic Irradiation. Bioelectromagnetics. – 1996. – Vol.17.- P. 223-229.

Иваницкий Г.Р. Деев А.А., Хижняк Е.П. Биологическое значение тепловых узоров на поверхности воды. // Сборник «Проблемы регуляции в биологических системах. Биофизические аспекты» (под ред. А.Б.Рубина) . - М: РХД, 2007. - С.292-328.

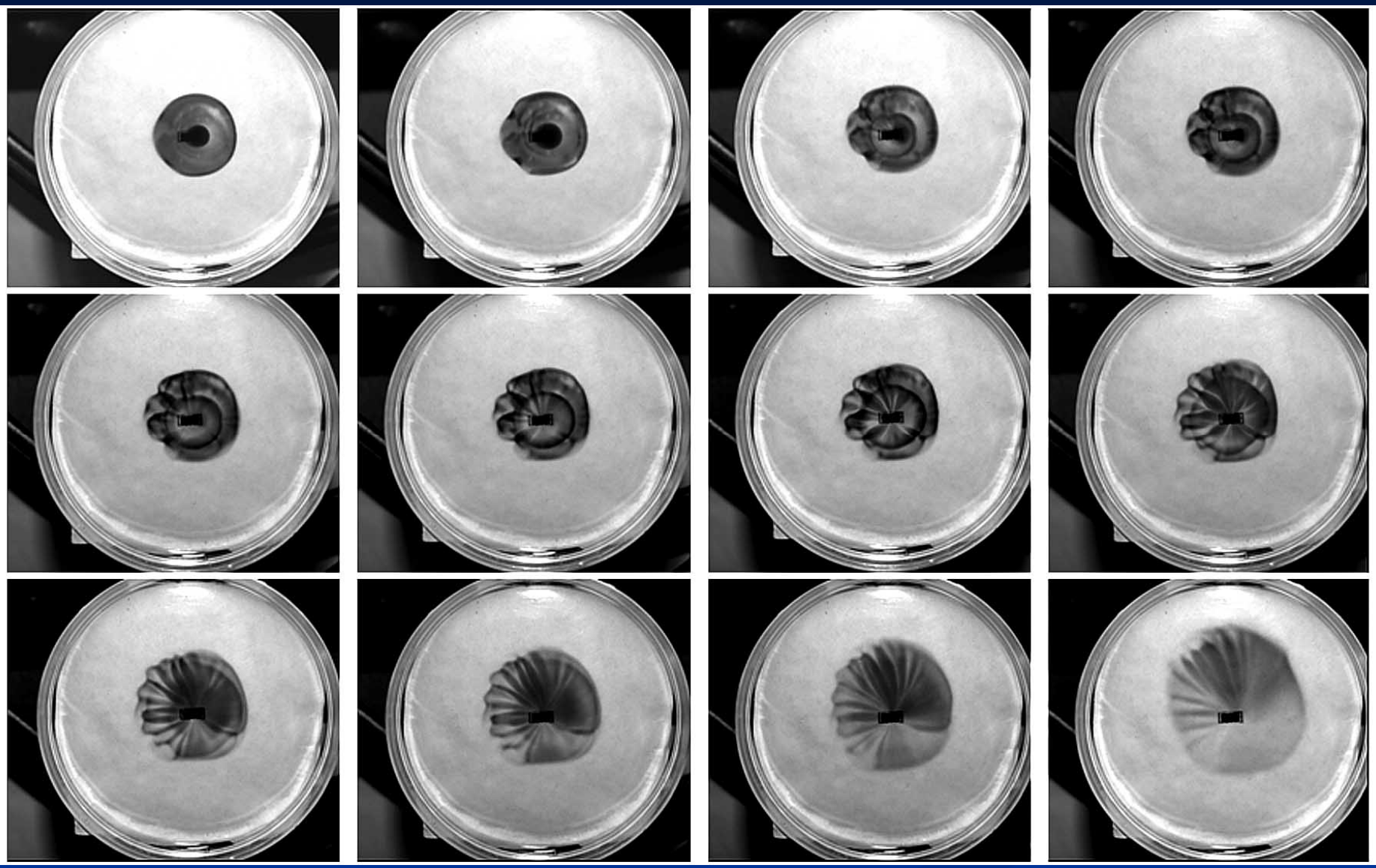
Method of EHF EMF influence on water with dye

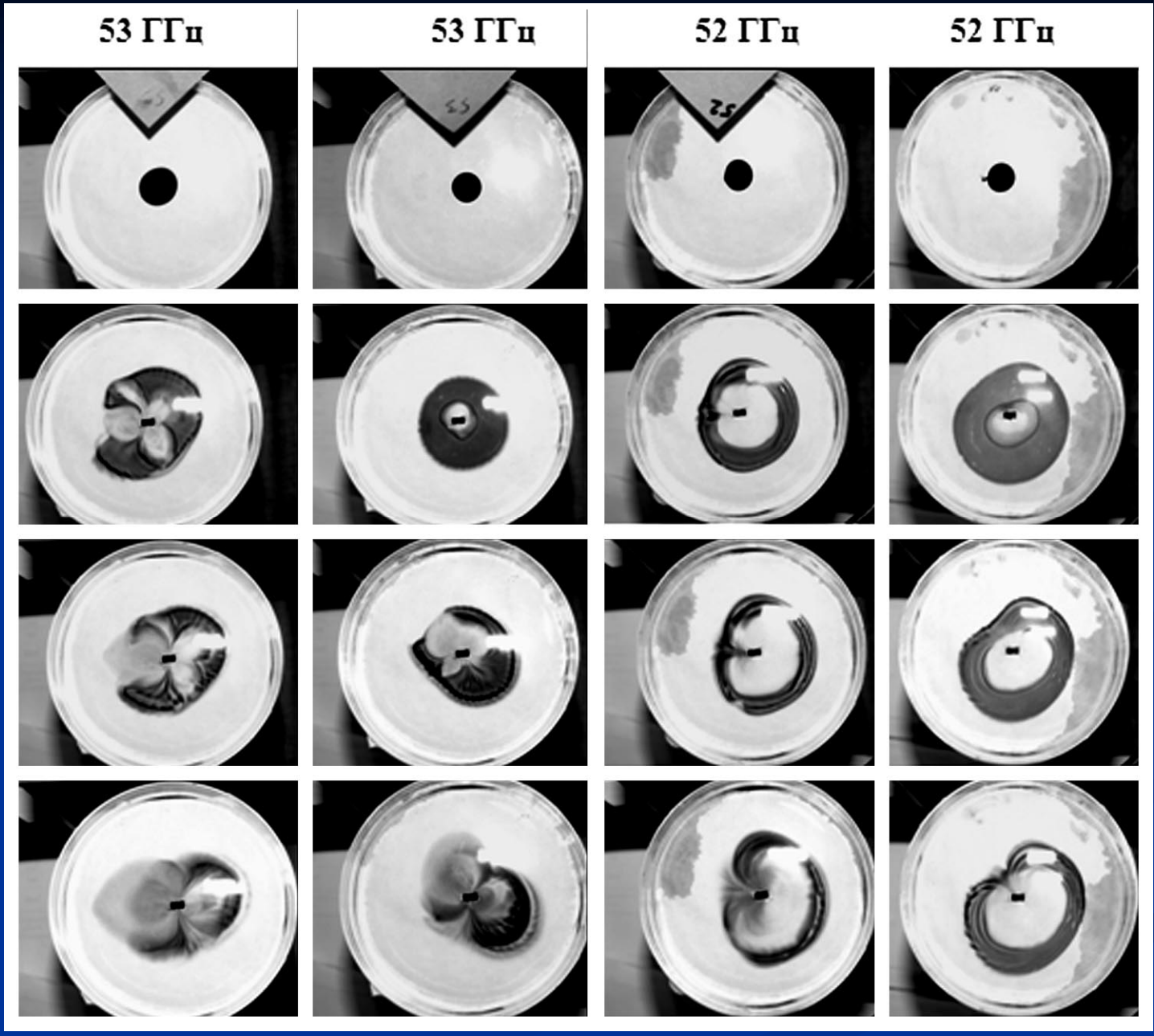


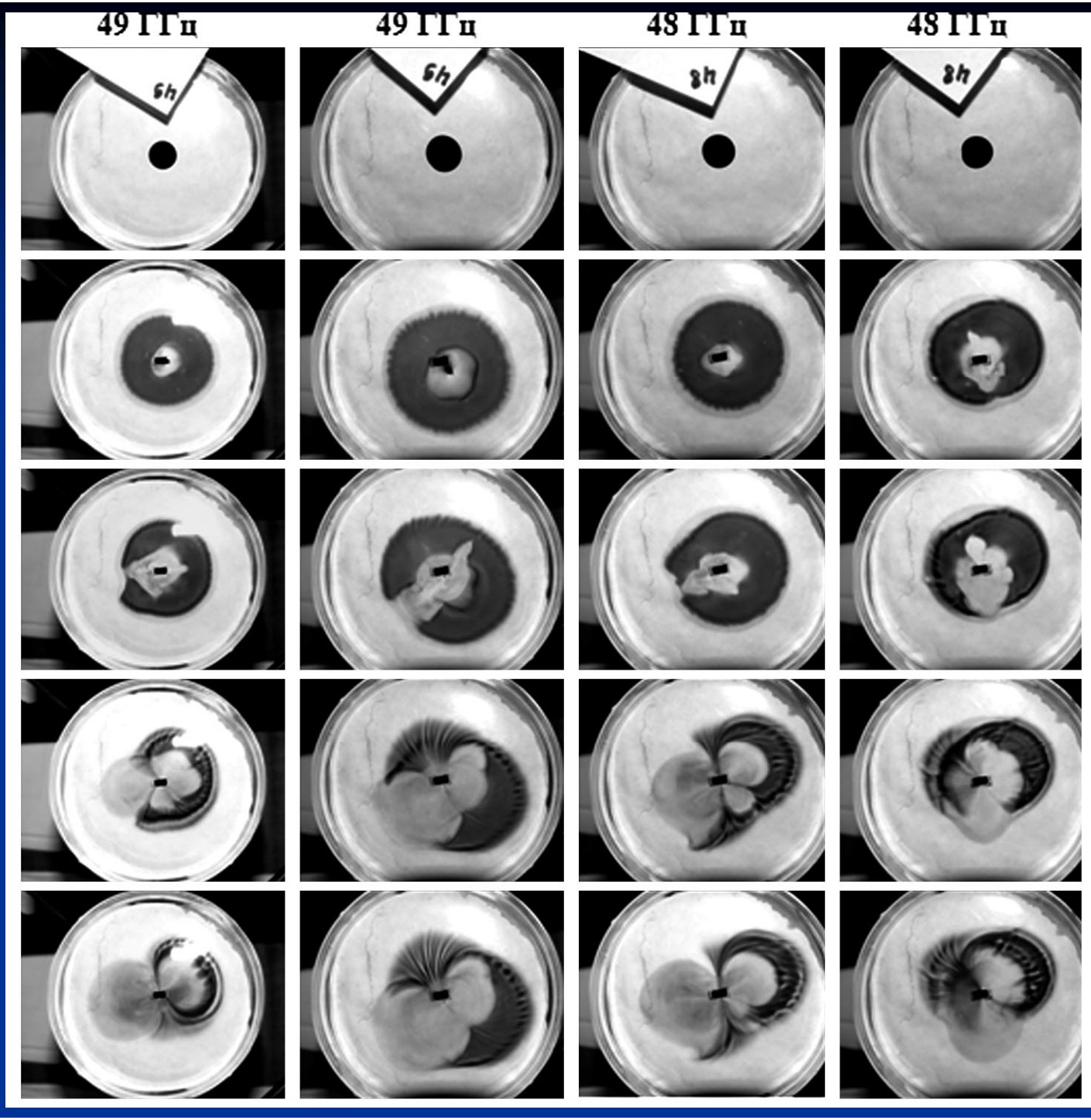
EHF EMF intensity: 10^{-2} watts

Heating near a waveguide:
2^{o}-4^{o}C

Temperature difference
between dyed and non-dyed volume space:
< 0,5^{o}C




53 ГГц
53 ГГц
52 ГГц
52 ГГц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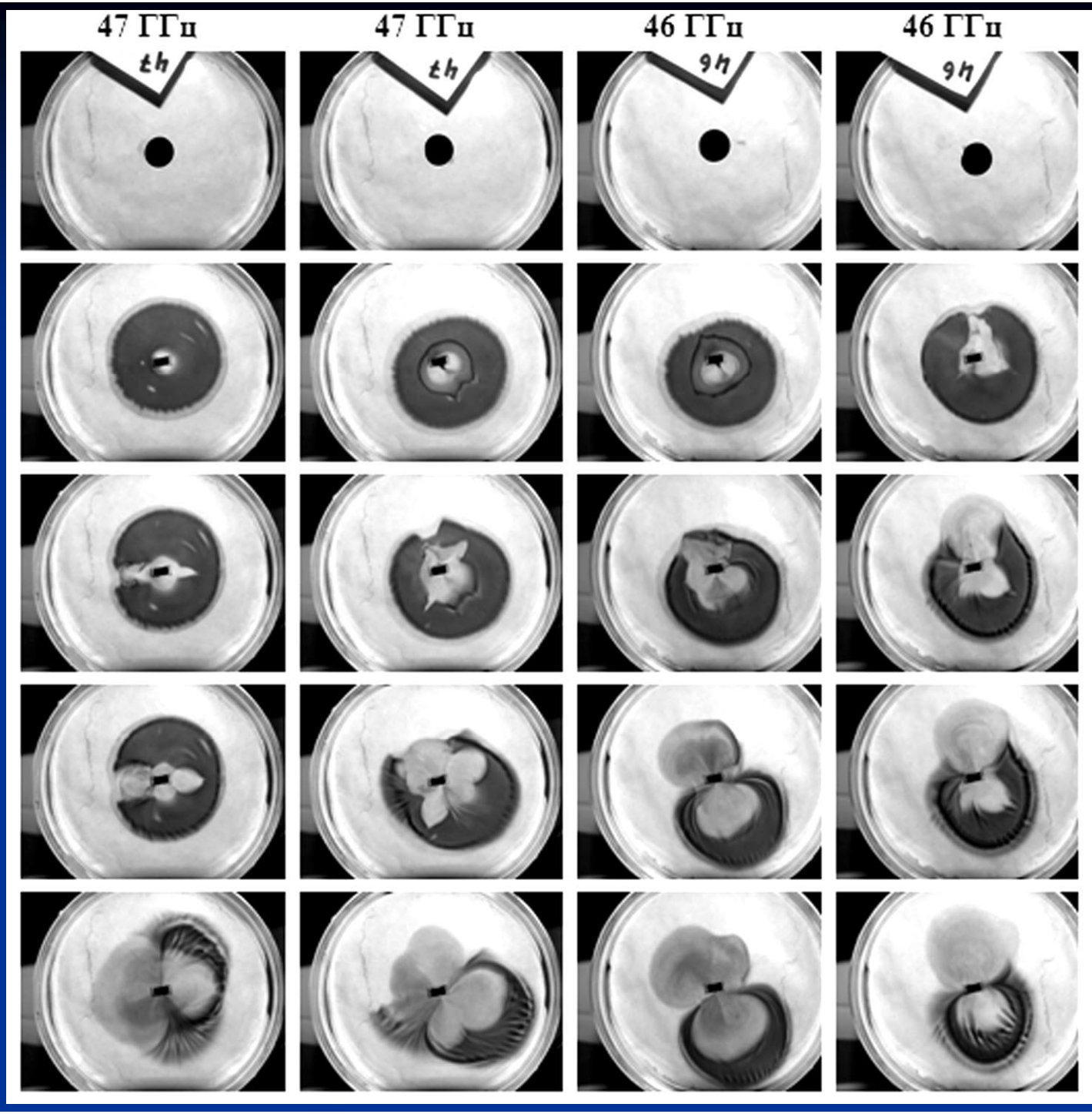
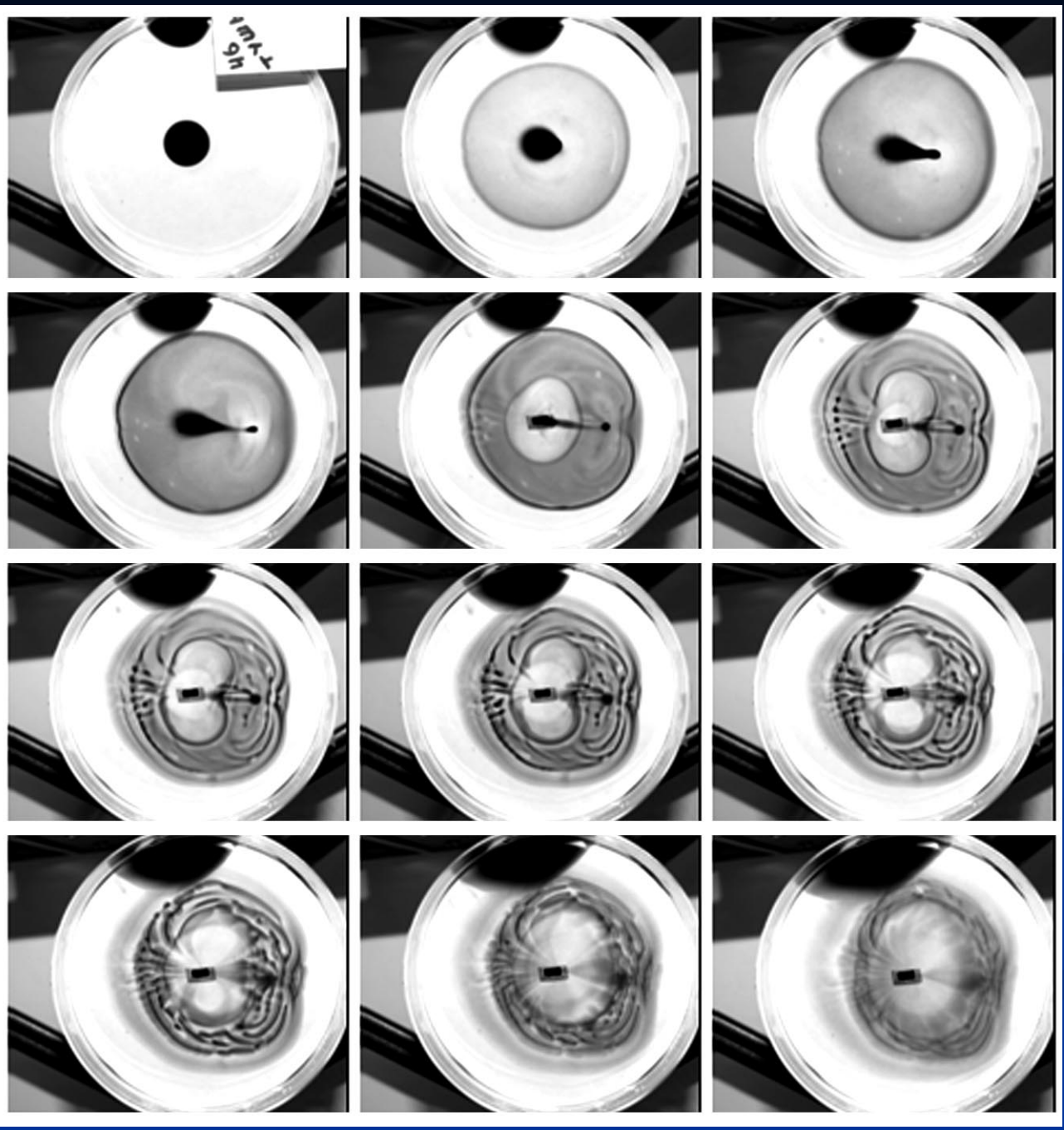
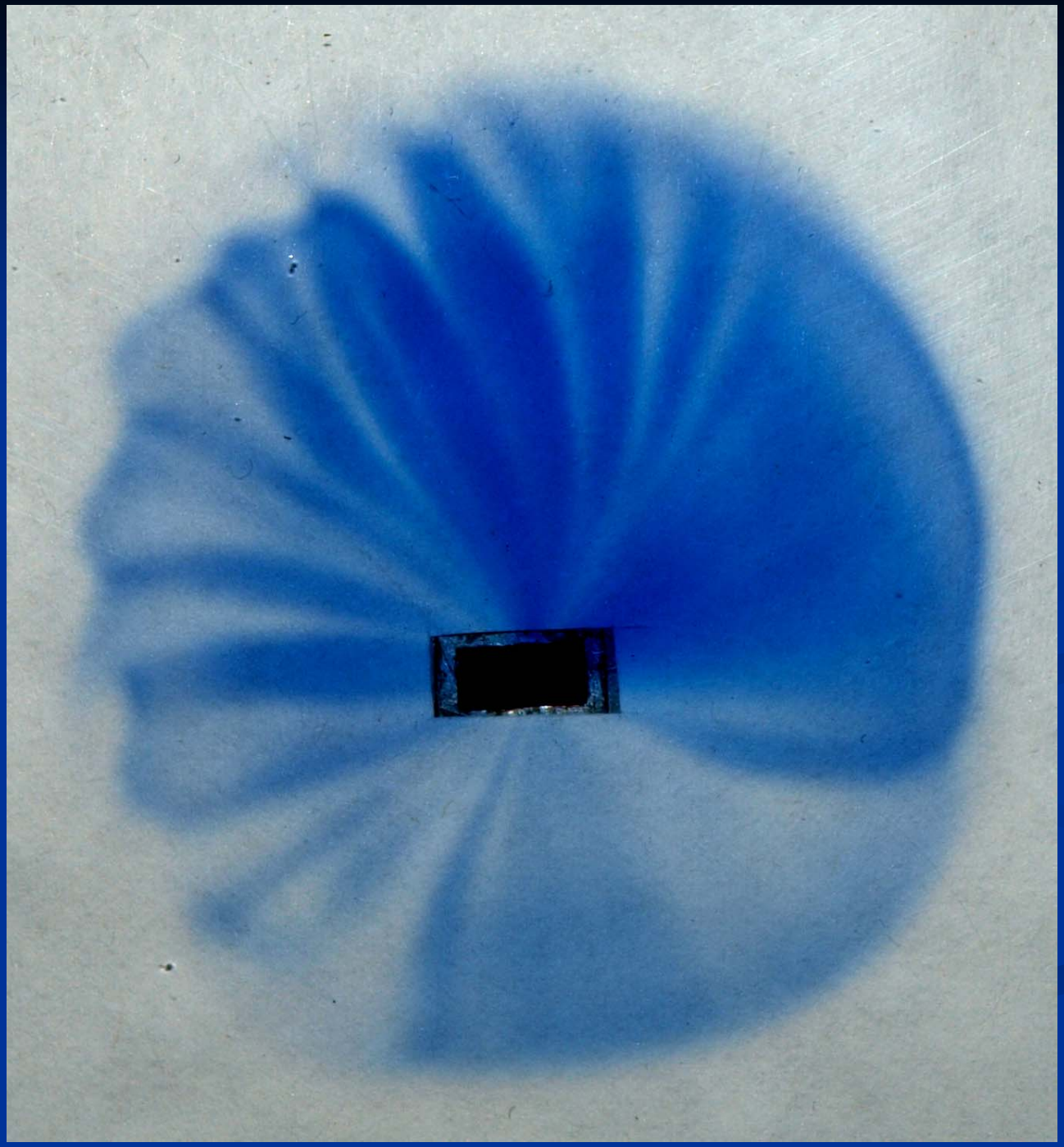
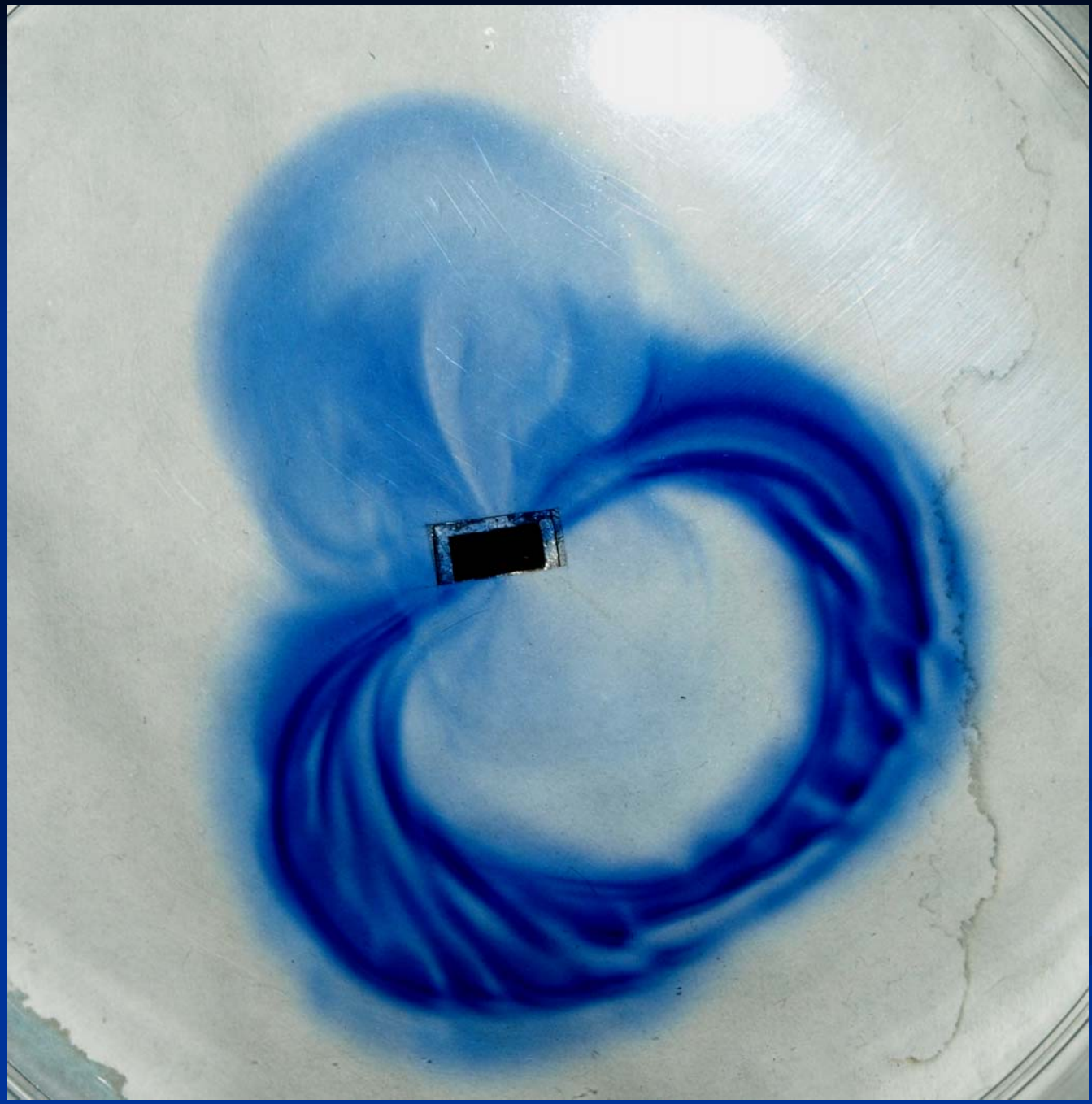
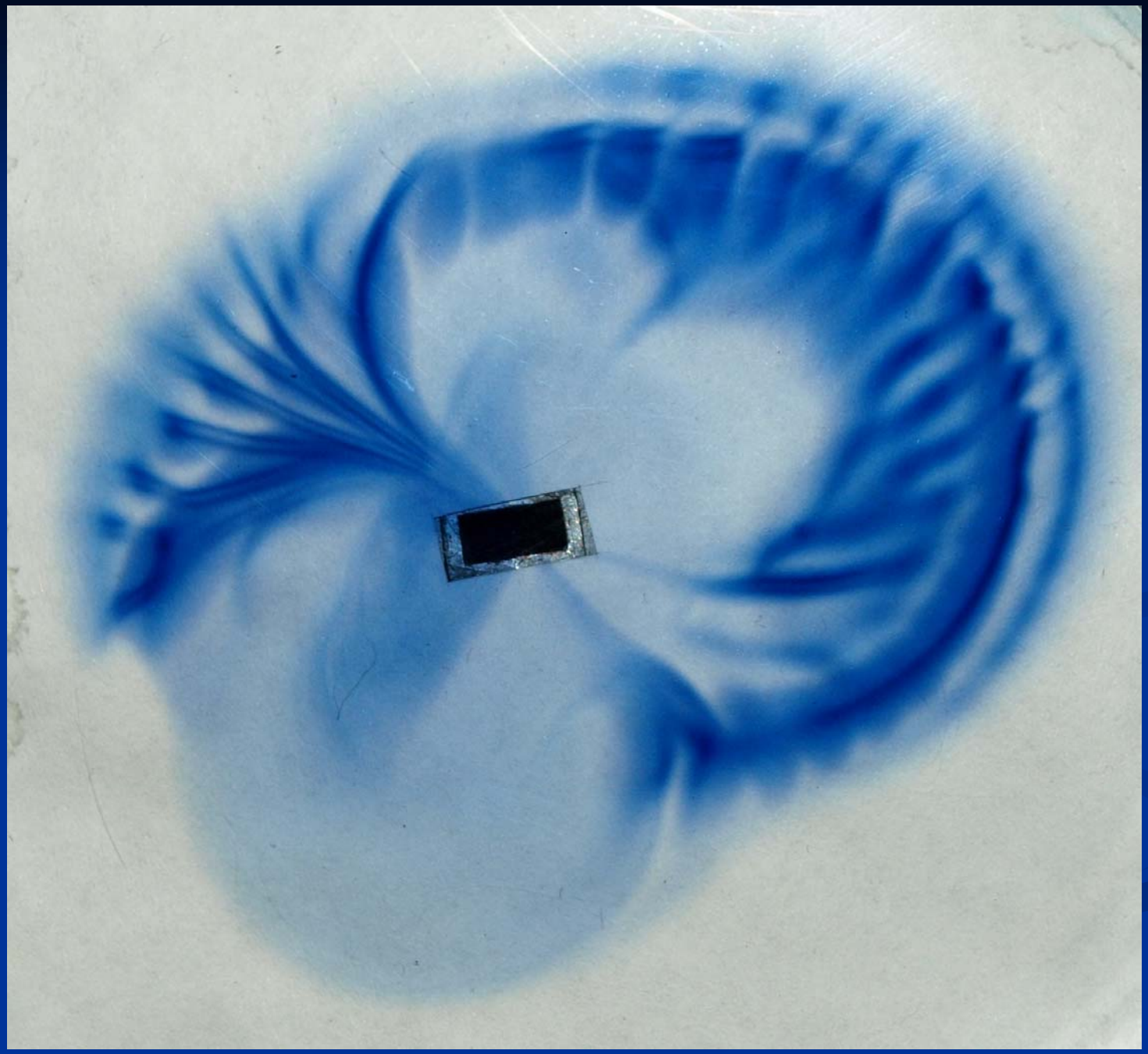
49 ГГц
48 ГГц
48 ГГц
6h
6h
8h
8h

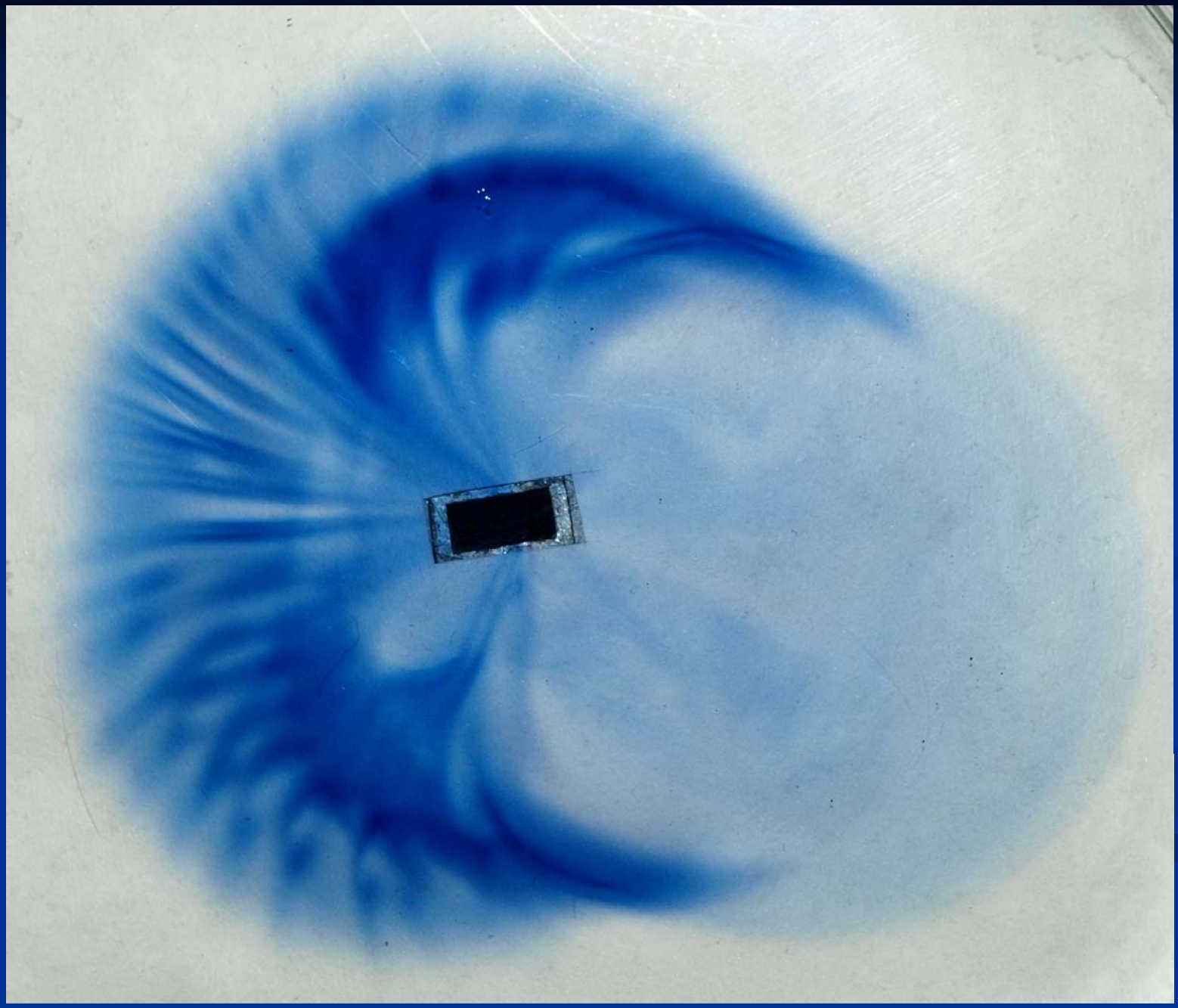

47 ГГц
47 ГГц
46 ГГц
46 ГГц
4h
4h
9h
9h

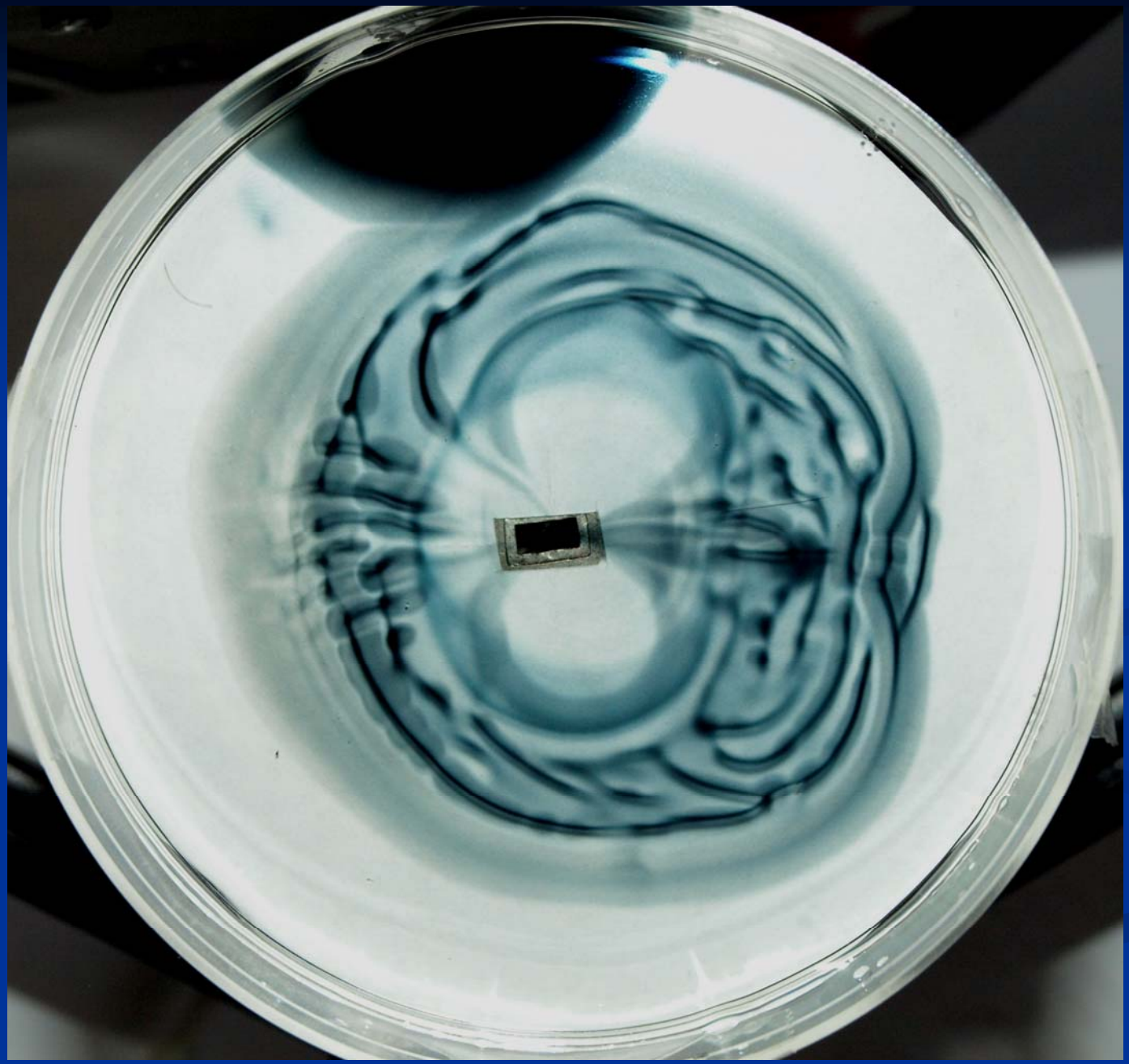




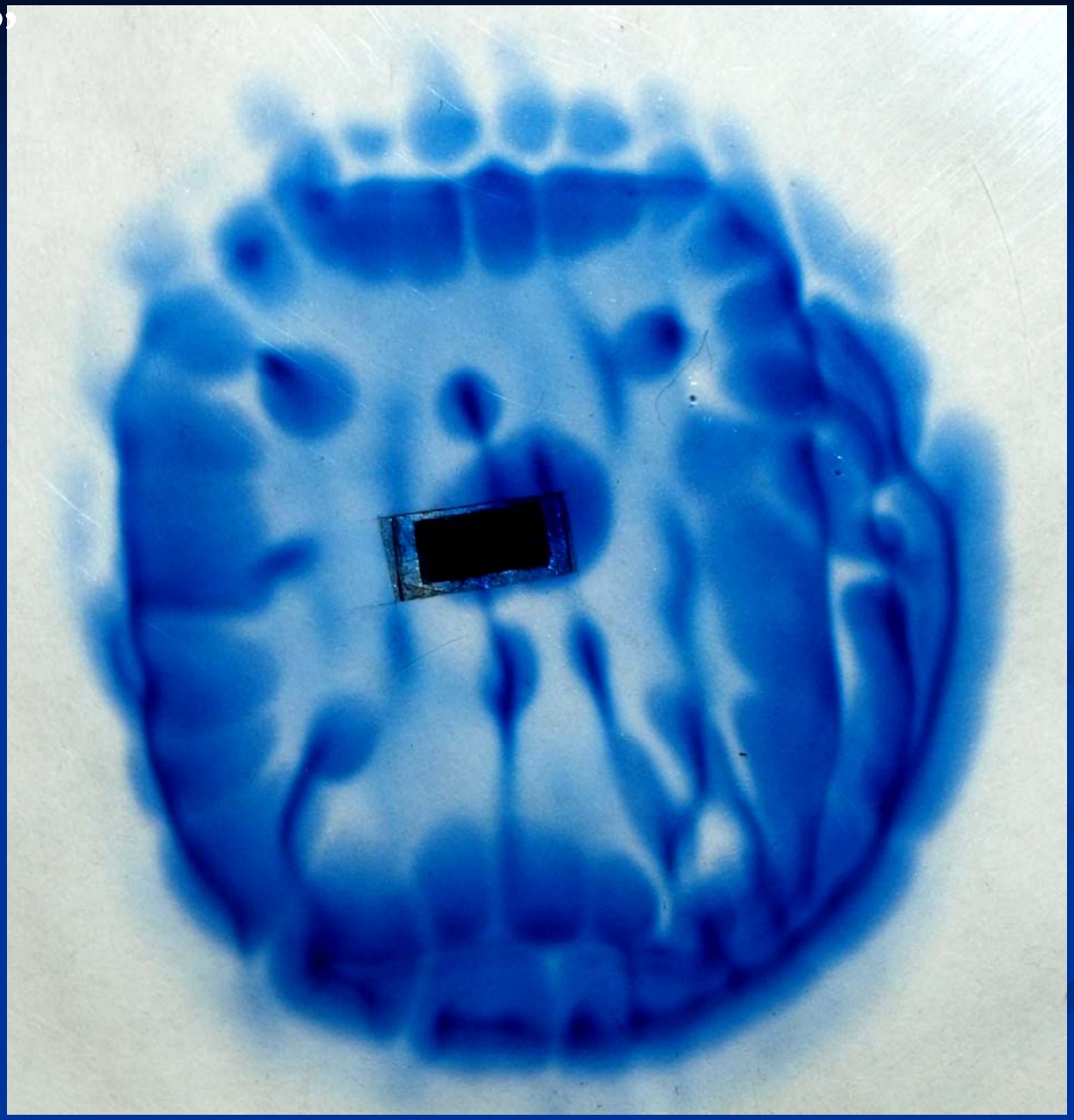




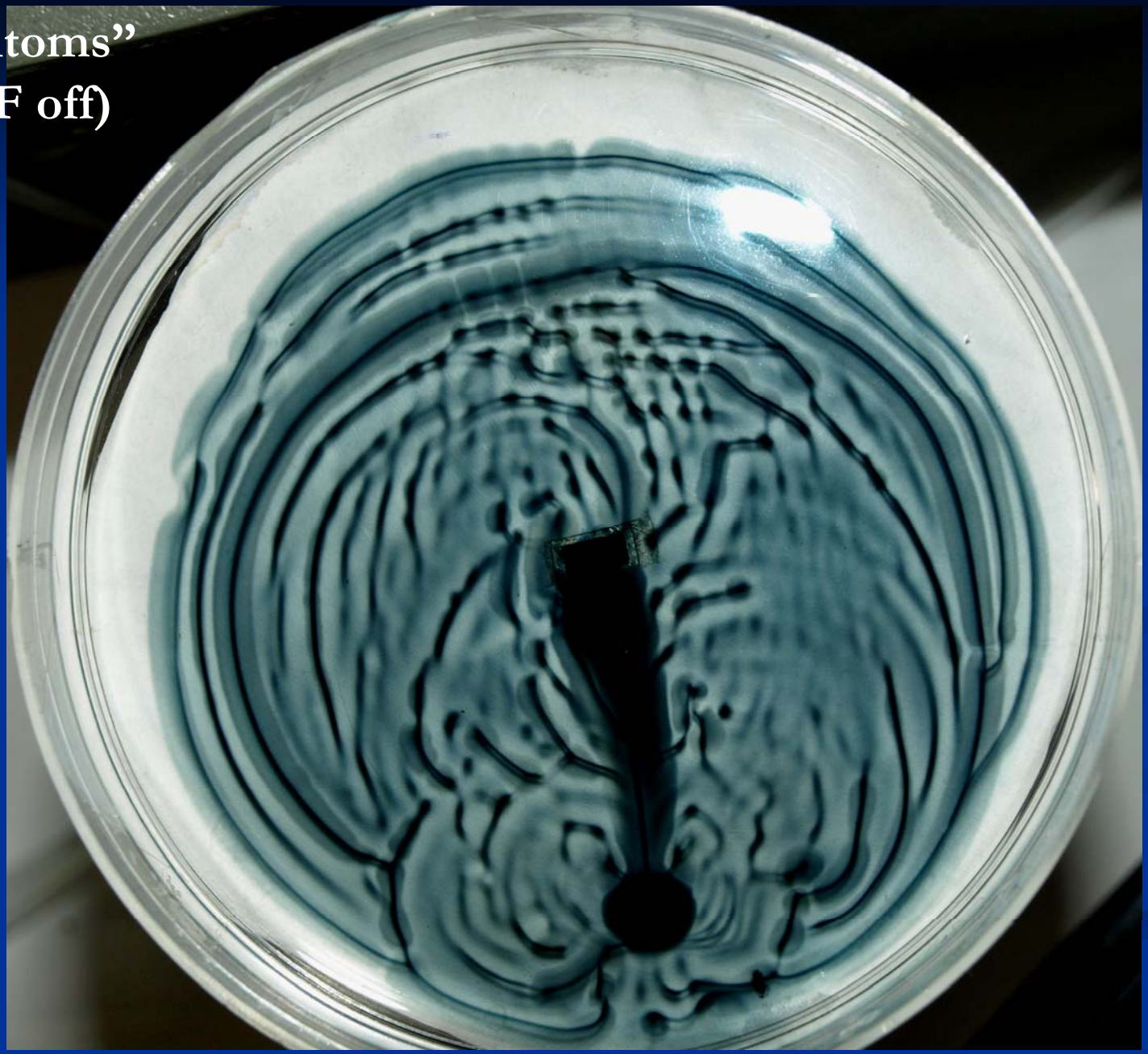




“Phantoms”
(EMF off)

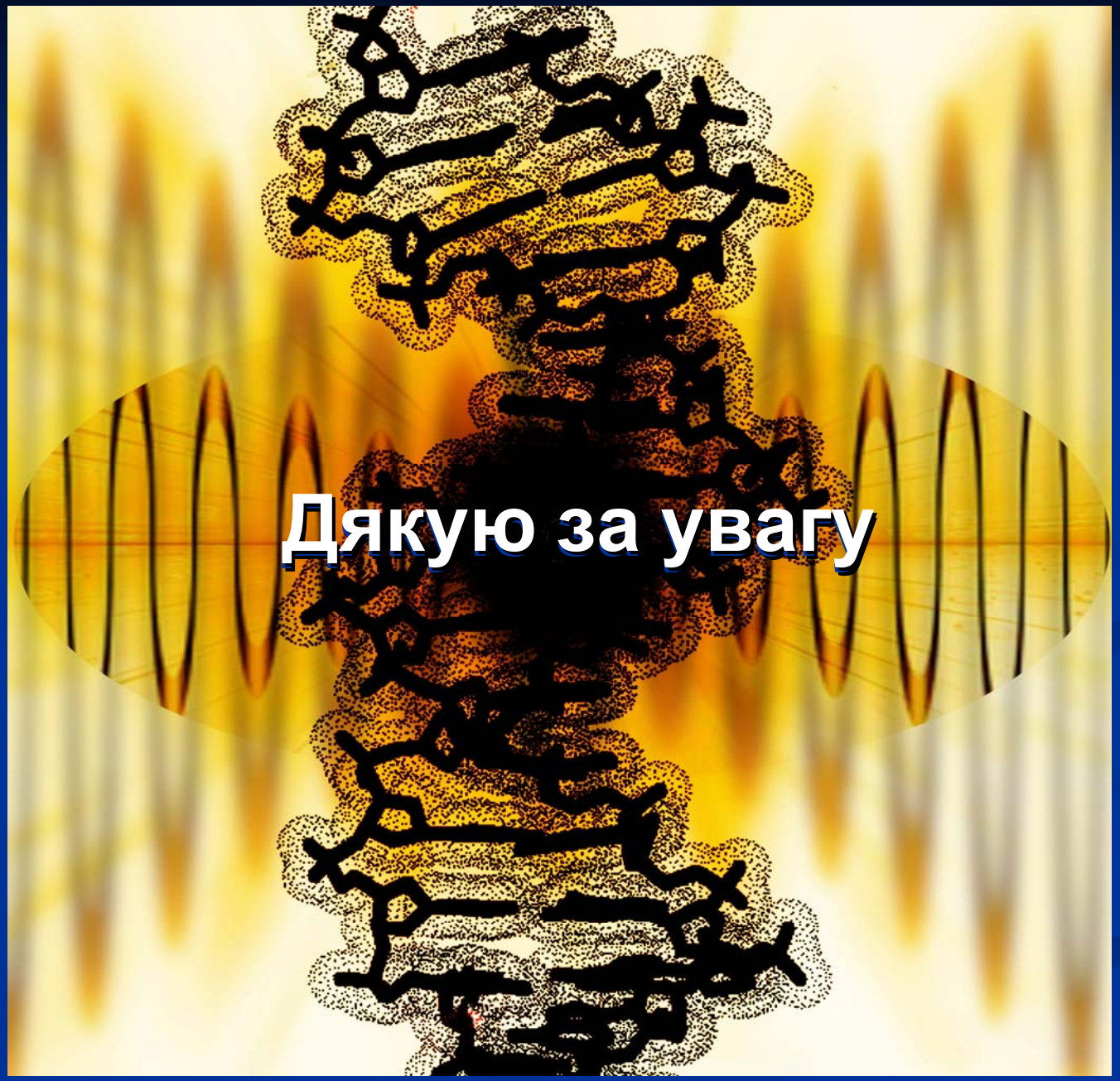


"Phantoms"
(EMF off)



Conclusions:

1. Action of EHF EMS forms the dissipative structures in water that can be visualized by dyes. The temperature gradients is the main factor that initiate formation of dissipative structures.
2. The life-time of dissipative structured is above 10-20 min and more. They are destroyed because of diffusion.
3. Most credible form of the dissipative structures depend on nature of dye, size of volume (height and width) (may be also on geometry of volume).
4. The behavior of experimental system strongly depends on uncontrolled environmental factors.


Дякую за увагу