

教 員 選 考 調 書

就 予 職	任 定 名	主配置	配 置	最終卒業学校 学部学科名 卒業年月	学 位	著 書 学 術 論 文	性 別	(ふりがな) 氏 名
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	<ul style="list-style-type: none"> ・The 5th Kobe University Brussels European Centre Symposium "AQUAPHOTOMICS: UNDERSTANDING WATER IN THE BIOLOGICAL WORLD" 優秀ポスター賞(2014) ・神戸大学女性研究者養成システム改革加速事業総括シンポジウム優秀ポスター賞(2015) ・平成28年度日本生化学会近畿支部奨励賞(2016) ・「研究について優れた業績を上げた教員」選出 神戸大学理学研究科(2019) ・「教育について優れた業績を上げた教員」選出 神戸大学理学研究科(2023)

原著論文（査読付き、*印は責任著者）

1. Keisuke Yuzu, Ching-Yang Lin, Po-Wei Yi, Chih-Hao Huang, Hiroshi Masuhara*, and **Eri Chatani*** "Spatiotemporal formation of a single liquid-like condensate and amyloid fibrils of α -synuclein by optical trapping at solution surface" *Proc. Natl. Acad. Sci. USA*, **121**, e2402162121 (2024).
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3. Keisuke Yuzu, Hiroshi Imamura, Takuro Nozaki, Yuki Fujii, Shaymaa Mohamed Mohamed Badawy, Ken Morishima, Aya Okuda, Rintaro Inoue, Masaaki Sugiyama, and **Eri Chatani*** "Mechanistic modeling of amyloid oligomer and protofibril formation in bovine insulin" *J. Mol. Biol.* **436**, 168461 (2024).
4. Shohei Maekawa*, Keisuke Yuzu, **Eri Chatani**, and Kenichi Morigaki "Oligomerization and aggregation of NAP-22 with several metal ions" *Neurosci Lett.* **821**, 137623 (2024).
5. Mika Ishigaki*, Yoshiki Kato, **Eri Chatani**, and Yukihiro Ozaki "Variations in the protein hydration and hydrogen-bond network of water molecules induced by the changes in the secondary structures of proteins studied through near-Infrared spectroscopy" *J. Phys. Chem. B* **127**, 7111-7122 (2023).
6. Minami Kurokawa, Tomoya Ohtsu, **Eri Chatani**, and Atsuo Tamura* "Hyper thermostability and liquid-crystal-like properties of designed α -helical peptide nanofibers" *J. Phys. Chem. B* **127**, 8331-8343 (2023).
7. Mao Fukuyama*, Suguru Nishitani, Yoko Maruyama, Taiki Ozawa, Shunsuke Tomita, Yumiko Ohhashi, Motohiro Kasuya, Masao Gen, **Eri Chatani**, Kentaro Shiraki, and Akihide Hibara* "Detection of fibril nucleation in micrometer-sized protein condensates and suppression of Sup35NM fibril nucleation by liquid-liquid phase separation" *Anal. Chem.* **95**, 9855-9862 (2023).
8. Po-Wei Yi, Wei-Hsiang Chiu, Shuichi Toyouchi*, Roger Bresolí-Obach*, Johan Hofkens, **Eri Chatani**, Yoichiroh Hosokawa*, Teruki Sugiyama*, and Hiroshi Masuhara* "Two-stage optical trapping and assembling of protein at air/solution interface" *App. Phys. Express* **16**, 025501 (2023).
9. Naoki Yamamoto*, Rintaro Inoue, Yoshiteru Makino, Hiroshi Sekiguchi, Naoya Shibayama, Akira Naito, Masaaki Sugiyama, and **Eri Chatani*** "Tracking the structural development of amyloid precursors in the insulin B chain and the inhibition effect by fibrinogen" *J. Phys. Chem. B* **126**, 10797-10812 (2022).
10. Yuki Yoshikawa, Keisuke Yuzu, Naoki Yamamoto, Ken Morishima, Rintaro Inoue, Masaaki Sugiyama, Tetsushi Iwasaki, Masatomo So, Atsuo Tamura, and **Eri Chatani*** "Pathway dependence of the formation and development of prefibrillar aggregates in insulin B chain" *Molecules* **27**, 3964-3964 (2022).
11. Po-Wei Yi, Wei-Hsiang Chiu, Tetsuhiro Kudo, Teruki Sugiyama*, Roger Bresolí-Obach*, Johan Hofkens, **Eri Chatani**, Ryohei Yasukuni, Yoichiroh Hosokawa*, Shuichi Toyouchi*, and Hiroshi Masuhara* "Cooperative optical trapping of polystyrene microparticle and protein forming a submillimeter linear assembly of microparticle" *J. Phys. Chem. C* **125**, 18988-18999 (2021).
12. Masahiro Noji, Tatsushi Samejima, Keiichi Yamaguchi, Masatomo So, Keisuke Yuzu, **Eri Chatani**, Yoko Akazawa-Ogawa, Yoshihisa Hagihara, Yasushi Kawata, Kensuke Ikenaka, Hideki Mochizuki, József Kardos, Daniel E Otzen, Vittorio Bellotti, Johannes Buchner, and Yuji Goto* "Breakdown of supersaturation barrier links protein folding to amyloid formation" *Commun. Biol.* **4**, 120 (2021).
13. Keisuke Yuzu, Naoki Yamamoto, Masahiro Noji, Masatomo So, Yuji Goto, Tetsushi Iwasaki, Motonari

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14. Hamed A Abosharaf, Yuki Sakamoto, Aliaa M Radwan, Keisuke Yuzu, Mika Fujimura, Thoria Diab, Tarek M Mohamed, **Eri Chatani**, Tetsunari Kimura, and Motonari Tsubaki* "Functional assembly of caenorhabditis elegans cytochrome *b-2* (*Cecytb-2*) into phospholipid bilayer nanodisc with enhanced iron reductase activity" *Biomolecules* **11**, 96 (2021).
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36. **Eri Chatani**[†], Michiko Sakata[†], Atsushi Kameda, Kazumasa Sakurai, Hironobu Naiki, and Yuji Goto* ([†]equally contributed) "Kinetic coupling of folding and prolyl isomerisation of β_2 -microglobulin studied by mutational analysis" *J. Mol. Biol.* **382**, 1242-1255 (2008).
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研究報告（査読付き、*印は責任著者）

1. 井上 倫太郎*, **茶谷 絵理**, 金谷 利治 「小角 X 線散乱によるアミロイド線維形成機構に関する研究」 *SPring-8/SACLA 利用研究成果集* **3**, 2011B1996/BL40B2 (2015).
2. **茶谷 絵理***, 井上 倫太郎, 竹中 幹人, 西田 幸次, 金谷 利治 「超小角 X 線散乱によるインスリ

「アミロイド線維の構造解析」 *SPring-8/SACLA 利用研究成果集 1*, 2011B1951 (2013).

(他、査読無しが 8 件)

総説・解説 (6, 7, 9 を除き査読付き、*印は責任著者)

1. Naoki Yamamoto* and **Eri Chatani** "Multistep growth of amyloid intermediates and its inhibition toward exploring therapeutic way: A case study using insulin B chain and fibrinogen" *Biophysics and Physicobiology* **19**, e190017 (2022).
2. **Eri Chatani***, Keisuke Yuzu, Yumiko Ohhashi, and Yuji Goto "Current understanding of the structure, stability and dynamic properties of amyloid fibrils" *Int. J. Mol. Sci.* **22**, 4349 (2021).
3. 柚 佳祐, **茶谷 絵理*** 「アミロイド線維の伝播に見られる構造の保存と変化」 *C & I Commun.* **46**, 19-21 (2021).
4. 山本 直樹, **茶谷 絵理*** 「アミロイド線維前駆中間体の観測とそれを標的とした線維形成阻害—インスリン由来モデルペプチドとフィブリノーゲンを用いた検証—」 *生物物理* **61**, 236-239 (2021).
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6. 櫻井 一正, **茶谷 絵理**, 後藤 祐児* 「タンパク質に対する圧力研究の新展開-基本熱力学から,分子構造に基づく理解,アミロイド線維まで」 *化学* **75**, 39-44 (2020).
7. **茶谷 絵理**, 後藤 祐児* 「分子夾雑のタンパク質物理化学—蛋白質凝集研究の進展とこれから」 *現代化学* **578**, 26-30 (2019).
8. **Eri Chatani*** and Naoki Yamamoto "Recent progress on understanding the mechanisms of amyloid nucleation" *Biophys. Rev.* **10**, 527-534 (2018).
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10. **茶谷 絵理**, 小沼 剛, 後藤 祐児* 「アミロイド線維伸長における中間体構造の捕捉と構造解析」 *生物物理* **52**, 148-149 (2012).
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15. **茶谷 絵理*** 「圧力で探求するタンパク質疎水性コア構造: ウシ膵臓リボヌクレアーゼ A を例として」 *日本農芸化学会誌* **78**, 407-409 (2004).
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以上