Christopher M. Dobson, F.R.S.

Research Publications

1969


1972


1973


1974


1975


1976


1977


1978


1979


1980


1981


1982


64. R.E. Wedin, M. Delepierre, C.M. Dobson, and F.M. Poulsen, "Mechanisms of hydrogen-exchange in proteins from nuclear magnetic resonance studies of individual tryptophan indole NH hydrogens in lysozyme" Biochemistry, 21, 1098-1103 (1982).


1983


1984


1985


1986


111. P.A. Evans, C.M. Dobson, and R.O. Fox, "NMR and site-directed mutagenesis reveal the effects of proline isomerism in both the folded and unfolded states of a protein" Protein Eng, 1, 231-231 (1987).


1988


120. C. Redfield and C.M. Dobson, "Sequential 1H NMR assignments and secondary structure of hen egg white lysozyme in solution" Biochemistry, 27, 122-136 (1988).


1989


1990


138. C.B. Post, C.M. Dobson, and M. Karplus, "Lysozyme hydrolysis of β-glycosides: A consensus between binding interactions and mechanism" in Computer


1991


152. S.J. Heyes, M.A. Gallop, B.F.G. Johnson, J. Lewis, and C.M. Dobson, "Kinetic analysis of the stereochemical nonrigidity of the triosmium \(\mu_3\)-arene/alkene complex \(\text{Os}_3(\text{CO})_8(\eta^2-\text{CH}_2\text{CH}_2)(\mu^3:2\eta^2:2\eta^2:2\eta^2-\text{C}_6\text{H}_6)\) in the solid state by \(^{13}\text{C}\) CP/MAS NMR spectroscopy" Inorg Chem, 30, 3850-3856 (1991).


1992

163. A.T. Alexandrescu, R.W. Broadhurst, C. Wormald, C.L. Chyan, J. Baum, and C.M. Dobson, "1H-NMR assignments and local environments of aromatic


173. X. Li, R.A. Smith, and C.M. Dobson, "Sequential 1H NMR assignments and secondary structure of the kringle domain from urokinase" Biochemistry, 31, 9562-9571 (1992).


1993


193. C.P. Grey, A.K. Cheetham, and C.M. Dobson, "Temperature-dependent solid-state Sn-119 MAS NMR of Nd$_2$Sn$_2$O$_7$, Nd$_2$Sn$_2$O$_7$, Sm$_2$Sn$_2$O$_7$, and Y$_{1.8}$Sm$_{0.2}$Sn$_2$O$_7$ - 3 Sensitive chemical shift thermometers" J Magn Reson Ser A, 101, 299-306 (1993).


1994


1995


1996


1997


1998


1999


2000


367. V. Villegas, J. Zurdo, V.V. Filimonov, F.X. Avilés, C.M. Dobson, and L. Serrano, "Protein engineering as a strategy to avoid formation of amyloid fibrils" Protein Sci, 9, 1700-1708 (2000).


2001


371. F. Chiti, M. Bucciantini, C. Capanni, N. Taddei, C.M. Dobson, and M. Stefani, "Solution conditions can promote formation of either amyloid protofilaments or mature fibrils from the HypF N-terminal domain" Protein Sci, 10, 2541-2547 (2001).


382. Y.O. Kamatari, H. Yamada, K. Akasaka, J.A. Jones, C.M. Dobson, and L.J. Smith, "Response of native and denatured hen lysozyme to high pressure


2002


2003


2004


2005


482. C. Parrini, N. Taddei, M. Ramazzotti, D. Degl'Innocenti, G. Ramponi, and F. Chiti, "Glycine residues appear to be evolutionarily conserved for their ability to inhibit aggregation" Structure, 13, 1143-1151 (2005).


2006


2007


2008


2009


2010


2011


622. A. De Simone, A. Dhulesia, G. Soldi, M. Vendruscolo, S.T. Hsu, F. Chiti, and C.M. Dobson, "Experimental free energy surfaces reveal the mechanisms of


2012


enhanced electron microscopic imaging of different aggregate forms of a segment of the amyloid β peptide in cells" ACS Nano, 6, 4760-4767 (2012).


2013


P. Ciryam, G.G. Tartaglia, R.I. Morimoto, C.M. Dobson and M. Vendruscolo, "Widespread aggregation and neurodegenerative diseases are associated with supersaturated proteins" Cell Rep, 14, 781-790 (2013).


M. M. Ouberai, J. Wang, M.J. Swann, C. Galvagnion, T. Guilliams, C.M. Dobson and M.E. Welland, "α-Synuclein senses lipid packing defects and induces lateral


2014


691. P. Arioso, M. Vendruscolo, C.M. Dobson and T.P. Knowles, "Chemical kinetics


2015


2016


758. A. Drews, J. Flint, N. Shivji, P. Jonsson, D. Wirthensohn, E. de Genst, C. Vincze, S. Muylaermans, C.M. Dobson and D. Klenerman, "Individual aggregates of amyloid beta induce temporary calcium influx through the cell membrane of


2017


796. F. Elia, F. Cantini, F. Chiti, C.M. Dobson and F. Bemporad, "Direct conversion of an enzyme from native-like to amyloid-like aggregates within inclusion bodies" Biophys J, 112, 2540-2551 (2017).


2018


