

Zusammenstellung neuerer Literatur über Zonalzentrifugation

A. Auftrennung von biologischem Material

Nukleinsäuren

DNS	SW 65 35 000 rpm, 64 h	Sacch., 5–20%	Influence of anoxia on radiation-induced breaks in the <i>E. coli</i> chromosome	P. M. ACHEY et al. J. Bacteriol. 95, 1180 (1968)
DNS	SW 65 43 000 rpm, 16 h	Sacch., 5–20%	Studies on <i>E. coli</i> sex factors	D. FREIFELDER J. Mol. Biol. 34, 31 (1968)
DNS	SW 50 49 000 rpm, 100 Min.	Sacch., 5–20%	Defective phage formation by lysogens of integration deficient phage P 22 mutants	H. O. SMITH Virology 34, 203 (1968)
DNS	SW 50 40 000 rpm, 5 h	Glycerol, 15–30%	Incorporation of ³ H-thymidine into nuclear and mitochondrial DNA	J. KOCH and E. STOKSTAD European J. Biochem. 3, 1–6 (1967)
DNS	B-XIV 47 000 rpm	Sacch., 10–30%	Isolation of circular DNA by zonal centrifugation	R. JAENISCH et al. BBA 190, 88 (1969)
DNS	B-XIV 39 000 rpm, 72 h	CsCl, D: 1,62–1,77	Purification of DNA by isopycnic banding in CsCl in a zonal rotor	R. WILLIAMSON Anal. Biochem. 32, 158 (1969)
DNS	B-XV 20 000 rpm, 15 h	Sacch., 5–30%	Fractionation of mammalian DNA by zonal centrifugation	H. B. HALSALL et al. Nature 221, 774 (1969)
DNS	B-XXV 27 000 rpm, ?	Sacch., 10–30%	Zonal centrifugation of mammalian DNA	E. S. KLUCIS et al. Anal. Biochem. 35, 480 (1970)
RNS	SW 50 50 000 rpm, 6 h	Sacch., 5–20%	Lysis of <i>E. coli</i> with a neutral detergent	G. N. GODSON and R. SINSHEIMER BBA 149, 476 (1967)
RNS	B-4 40 000 rpm, 6 h	Sacch., 5–20%	A unique ribonucleic acid of low molecular weight from rat liver microsomes	J. A. A. GARDNER et al. J. Biol. Chem. 243, 10 (1968)
RNS	SW 65 60 000 rpm, 2 ³ / ₄ h	Sacch., 5–20%	Messenger RNA associated with polysomes and ribosomes in KB cells	H. RISTOW and K. KÖHLER BBA 142, 65 (1967)
RNS	SW 25 25 000 rpm, 16 h	Sacch., 5–45%	Studies on the nuclear 4 to 7 s RNA of the Novikoff Hepatoma	Y. MORIYAMA et al. J. Mol. Biol. 39, 335 (1969)

Enzyme

Fettsäuresynthetase	SW 65 65 000 rpm, 14 h	Mannitol, 5–20%	Regulation of acetyl-Co-A-carboxylase of <i>Sacch. cerev.</i>	R. K. RASMUSSEN and H. P. KLEIN Biochem. Biophys. Res. Commun. 28, 415 (1967)
Adenylsäure-desaminase	B-4 40 000 rpm, 13 h	Sacch., 10–30%	Purification and some regulatory properties of the enzyme from calf brain	B. SETLOW et al. J. Biol. Chem. 242, 607 (1967)

Zellorganellen

Chloroplasten	A-IX 3000 rpm, 20 Min.	Sacch., 0–60%	Bulk separation of chloroplasts with intact membranes	C. C. STILL and C. A. PRICE BBA 141, 176 (1967)
Chloroplasten	B-XXX-A 35 000 rpm, 41/2 h	Ficoll, 0–10%	Isolation of intact chloroplasts from <i>Euglena gracilis</i> by zonal centrifugation	A. VASCONCELOS et al. Plant. Physiol. 47, 217 (1971)
Chromatophoren	SW 65 60 000 rpm, 1 h		Isolation of a reaction center fraction from <i>Rhodospseudomonas spheroides</i>	D. W. REED and R. K. CLAYTON Biochem. Biophys. Res. Commun. 30, 417 (1968)
Microsomen	B-4 40 000 rpm, 3 h	Sacch., 15–35%	Studies of pesticide distribution in sub-cellular components of mammalian tissues	R. L. BARON et al. Anal. Biochem. 19, 50 (1967)
Mitochondrien/ Lysosomen	A-XII 3500 rpm, 285 Min.	Sacch., 0–50%	Separation of rat-liver lysosomes and mitochondria	H. SCHUEL et al. Anal. Biochem. 25, 146 (1968)
Mitochondrien/ Peroxisomen/ Lysosomen	B-XXIII 10 000 rpm, 10 Min.	Ficoll-Sacch. D: 1,05–1,15	Separation of mitochondria, peroxysomes and lysosomes by zonal centrifugation	D. H. BROWN BBA 162, 152 (1968)
Plasmamembranen	B-XV 42 000 rpm, 1 h	Sacch. D: 1,08–1,25	Purification of plasmamembranes of rat liver	R. A. WEAVER et al. BBA 173, 377 (1969)
Plasmamembranen	B-XIV 42 000 rpm, 3 h	Sacch., 0–60%	Fractionation of liver plasma membranes prepared by zonal centrifugation	H. W. EVANS Biochem. J. 116, 833 (1970)
Polysomen	SW 50 37 500 rpm, 50 Min.	Sacch., 8–25%	The effect of ribonuclease on polysomes and ribosomes of bacteria and animal cells	M. L. FENWICK Biochem. J. 107, 481 (1968)
Ribosomen	B-4 40 000 rpm, 3 1/2 h	Sacch., 10–30%	Macromolecular synthesis and radio-sensitivity in <i>E. coli</i> .	G. E. SAPLETON et al. Radiation Res. 30, 173 (1967)

Ribosomen (Untereinheiten)	SW 25 24 000 rpm, 11,5 h	Sacch., 5–20%	The effect of sulfhydryl reagents on ribosome activity (<i>E. coli</i>)	R. R. TRAUT et al. European J. Biochem. 2, 64 (1967)
Ribosomen	SW 50 50 000 rpm, 1 1/2 h	Sacch., 5–20%	The action of sirmate on chloroplast ribosomes	J. Cell Biol. 37, C 1–C 6 (1968)
Ribosomen (Untereinheiten)	B-XV 21 000 rpm, 6 h	Sacch. D: 1,05–1,25	Subribosomal particles separated from liver and hepatoma homogenates	B. M. MULLOCK et al. European J. Biochem. 18, 485 (1971)
Ribosomen	B-XXX-A 50 000 rpm, 1,5–4,5 h	Sacch., 5–30%	Equivolumetric gradients for zonal rotors: Separation of ribosomes	M. S. POLLACK, C. A. PRICE Anal. Biochem. 42, 38 (1971)
Zellkerne	A-XII 600 rpm, 1 h	Sacch., 20–50%	The fractionation of nuclei from mammalian cells by zonal centrifugation	I. R. JOHNSTON et al. Biochem. J. 109, 128 (1968)
Zellkerne	A-IX 200 rpm, 1 h	Sacch. D: 1,0–1,3	Zonal centrifugation of crude nuclear fractions from rat liver	A. A. EL-AASER et al. BBA 127, 556 (1966)
Paramylon-Granula	B-IV 7000 rpm, 15 Min.	Sacch., 17–55%	Isolation of paramylon from <i>Euglena gracilis</i>	A. A. BARBER et al. Natl. Cancer Inst. Monogr. 21, 303 (1966)
Viren				
Bakteriophagen (T 3)	B-XIV 4000 rpm, 10 Min.	Sacch., 5–15%	The capacity of zones in density-gradient centrifugation	S. P. SPRAGG and C. T. RANKIN BBA 141, 164 (1967)
Herpes	B-IV 30 000 rpm, 30 Min.	Silica-Polyäthylen/ Glycol, D: 1,0–1,3	Isopycnic zonal centrifugation in colloidal silica	H. PERTOFT Anal. Biochem. 38, 506 (1970)
Influenza PR 8	SW 50 50 000 rpm, 2 h	Sacch., 16–64%	On the structure and replication of influenza virus	P. H. DUESBERG and W. S. ROBINSON, J. Mol. Biol. 25, 383 (1967)
Verschiedenes				
Faktor XIII (Fibrin-stabilisierender Faktor)	SW 65 44 000 rpm, 18,5 h	Sacch., 10–40%	The transpeptidase-system which crosslinks fibrin by γ -glutamyl- ϵ -lysine bonds	L. LORAND et al. Biochem. Biophys. Res. Commun. 31, 222 (1968)
γ -Globulin, 19 s	SW 50 50 000 rpm, 1 h	Mannitol, 5–20%	Regulation of acetyl-CoA-carboxylase of <i>Sacch. cerevisiae</i>	R. K. RASMUSSEN and H. P. KLEIN Biochem. Biophys. Res. Commun. 28, 415 (1967)

Hämoglobin	SW 65 65 000 rpm, 14 h	Sacch., 5–20%	The synthesis of globin dimers by a reticulocyte cell-free system	W. V. ZUCKER et al. BBA 138, 400 (1967)
Immun-Komplexe	B-XIV 30 000 rpm, 5 h	Sacch., 2–10%	Separation and analysis of soluble immune complexes	J. STEENSGAARD and R. J. HILL Anal. Biochem. 34, 485 (1970)
Serum	SW 65 66 000 rpm, 16 h	Sacch., 9–28%	Tables for estimating sedimentation through linear concentration gradients	C. R. McEWEN Anal. Biochem. 20, 114 (1967)

B. Allgemeines über Zonal-Zentrifugation

Analytical techniques for cell fractions

IV. Reorienting gradient rotors for zonal centrifugation	N. G. ANDERSON et al. Anal. Biochem. 7, 1 (1964)
V. Characteristics of the B-XIV and B-XV zonal centrifuge rotors	N. G. ANDERSON et al. Anal. Biochem. 21, 235 (1967)
VI. Multiple gradient-distributing rotor	E. L. CANDLER et al. Anal. Biochem. 21 (1967)
VII. A simple gradient-forming apparatus	N. G. ANDERSON et al. Anal. Biochem. 22, 171 (1967)
XI. Rotor B-XXIII-A, a zonal centrifuge rotor for center or edge unloading	N. G. ANDERSON et al. Anal. Biochem. 26, 415 (1968)
XII. A multiple-cuvet rotor for a new microanalytical system	N. G. ANDERSON et al. Anal. Biochem. 28, 545 (1969)
XVI. Preparation of protein-free supernatants with a "Z"-Path Rotor	N. G. ANDERSON et al. Anal. Biochem. 31, 272 (1969)
XV. Rotor B-XXIV-A, new high-resolution zonal centrifuge rotor for virus isolation and cell fractionation	N. G. ANDERSON et al. Anal. Biochem. 31, 255 (1969)
XIV. Use of drainage syphons in a fast-analyzer cuvet-rotor	N. G. ANDERSON et al. Anal. Biochem. 32, 59 (1969)
The capacity of zones in density gradient centrifugation	S. P. SPRAGG and C. T. RANKIN BBA 141, 164 (1967)

Rate zonal centrifugation in a ficoll gradient

T. G. PRETLOW et al.
Anal. Biochem. 29, 230 (1969)

Resolution in zonal rotors

C. A. PRICE and A. KOVACS
Anal. Biochem. 28, 460 (1969)

Sedimentation coefficients in the zonal ultracentrifuge

V. SCHUMAKER and H. B. HALSALL
Anal. Biochem. 30, 368 (1969)

A reorienting gradient zonal rotor for low-speed separation of cell components

P. SHEELER and J. R. WELLS
Anal. Biochem. 32, 38 (1969)

K-Series centrifuges

I. Development of the K-II continous-sample flow-with-banding centrifuge system for vaccine purification

N. G. ANDERSON et al.
Anal. Biochem. 32, 460 (1969)

III. Effect of core taper on particle capture efficiency

T. E. PERADI et al.
Anal. Biochem. 34, 112 (1970)

IV. Measurement and control of temperature

J. N. BRANTLEY et al.
Anal. Biochem. 36, 434 (1970)

C. Reviews

The development of zonal centrifuges and ancillary systems for tissue fractionation and analysis

(N. G. ANDERSON, ed.)
Natl. Cancer Inst. Monograph 21,
Washington D. C., 1966

Preparative particle separation in density gradients

N. G. ANDERSON
Quart. Rev. Biophys. 1, 217 (1968)

D. Symposium

Separations with zonal rotors

ERIC REID, ed.
Wolfson Bioanalytical Centre of
the University of Surrey at Guild-
ford, U.K. (1971)