

BIOCHEMISTRY UNIT

Investigation of the toxicology and pharmacology of xenobiotics
using biochemical methods
on a molecular level

2029233384

BIOCHEMISTRY UNIT

scientific structure

molecular toxicology

clinical chemistry

MOLECULAR BIOLOGY

DNA strand breaks, DNA protein cross-links, (DNA adducts), (oncogene diagnosis)

alkaline elution, ex vivo and in vitro, DNA conformation assay, hybridization

initiation, promotion, progression

BIOKINETICS AND METABOLISM

enzyme and cofactor analysis, metabolism studies, lipid peroxidation

tracer techniques, in vivo and in vitro, spectrophotometry, HPLC, conjugate analysis

initiation, promotion

BIOMONITORING

metabolite excretion or exhalation, enzyme and cofactor analysis, (DNA or protein adducts)

ELISA, spectrophotometry, HPLC

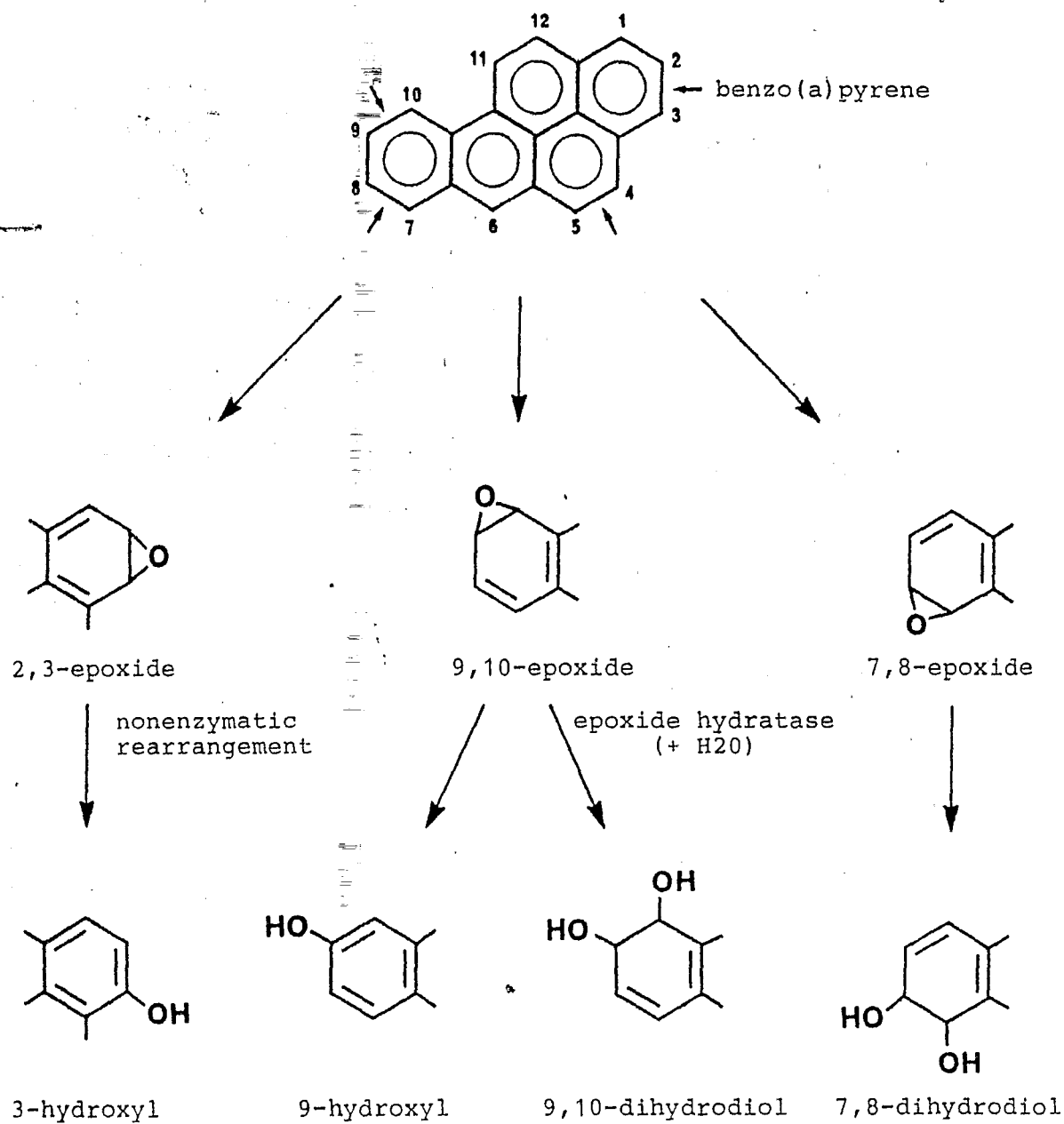
initiation

CLINICAL CHEMISTRY

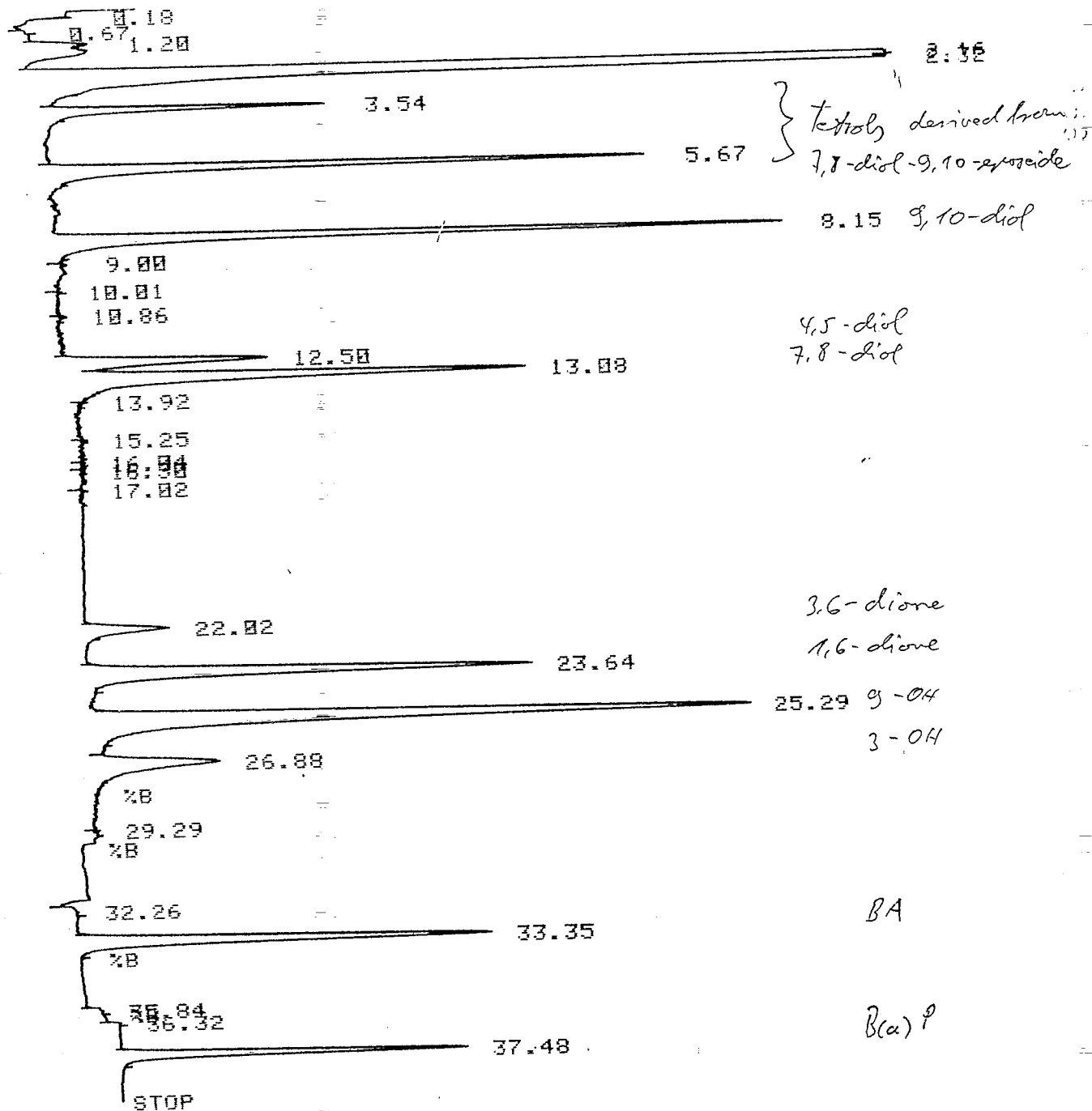
analysis of ions, low molecular compounds, and enzymes in serum and urine

flame ionization spectrometry, photometry, electrophoresis

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INJ START MESSAGE 8 6

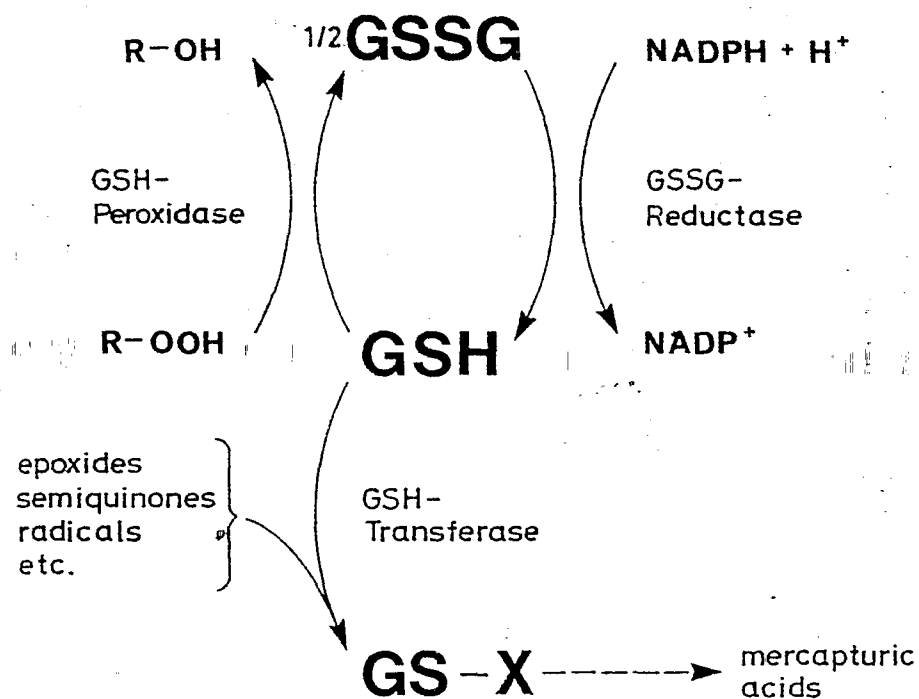


hp 1080 B

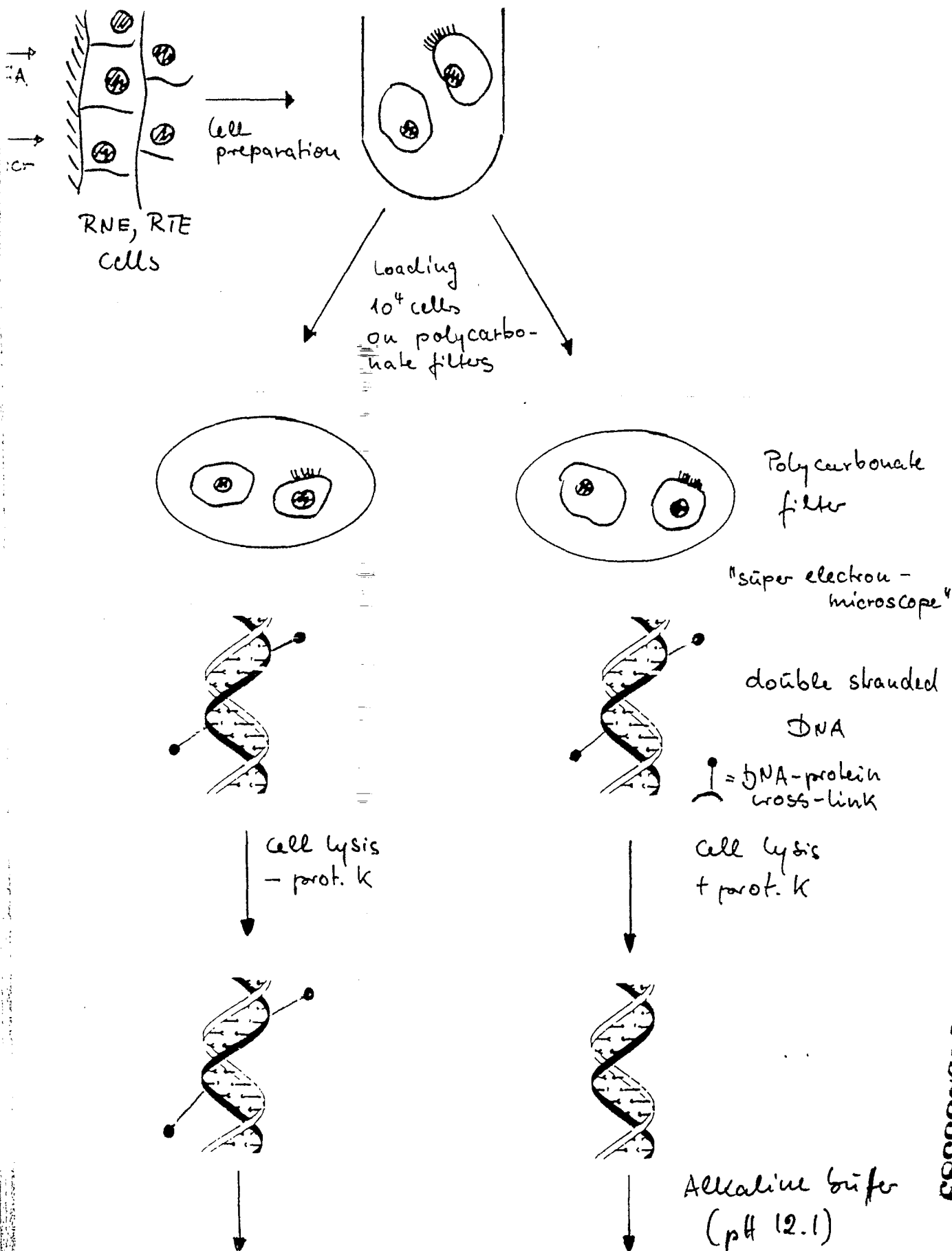
BTL: 54 RUN # 1
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NO CALIB

RT	AREA	AREA %
1.20	4090	0.320
3.54	52370	4.103
5.67	141300	11.071
8.15	178300	13.970
12.50	61640	4.830
13.08	154200	12.082
22.02	23390	1.833
23.64	150400	11.784
25.29	261100	20.458
26.88	55130	4.320
32.26	1437	0.113
33.35	119000	9.324
37.48	73920	5.792

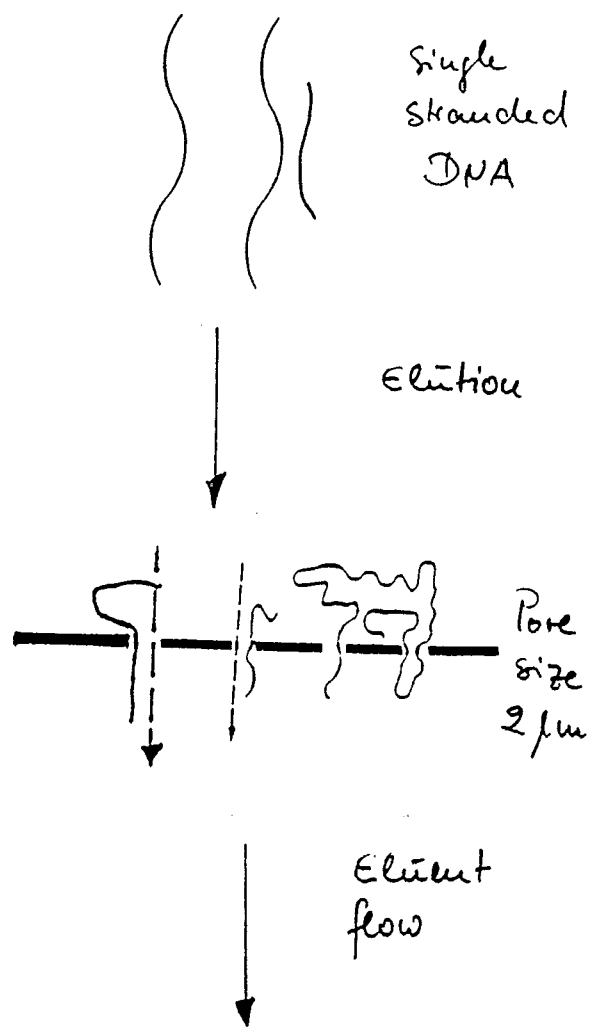
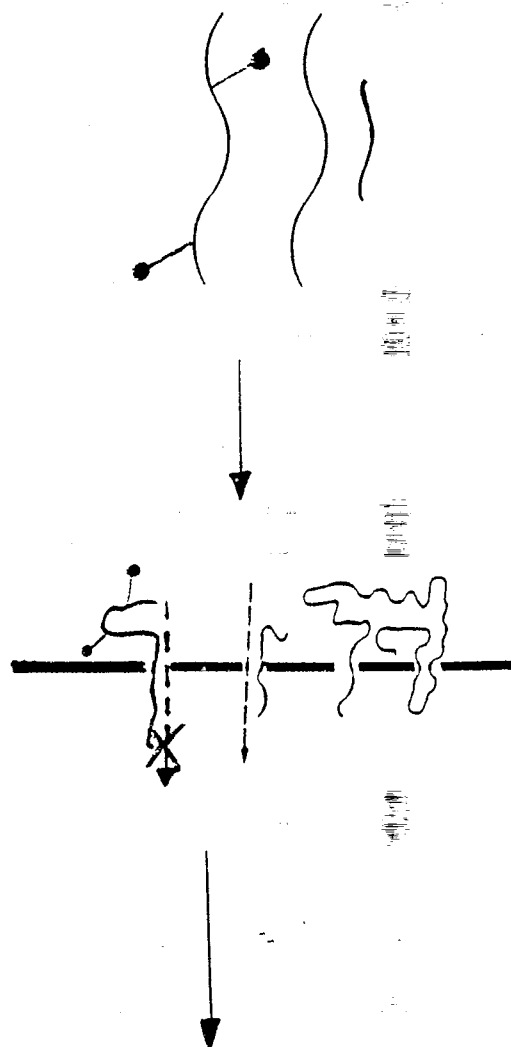
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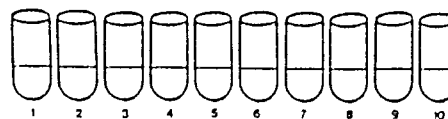
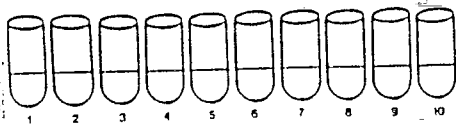


Single
stranded
DNA

Elution

Pore
size
2 μ m

Eluent
flow

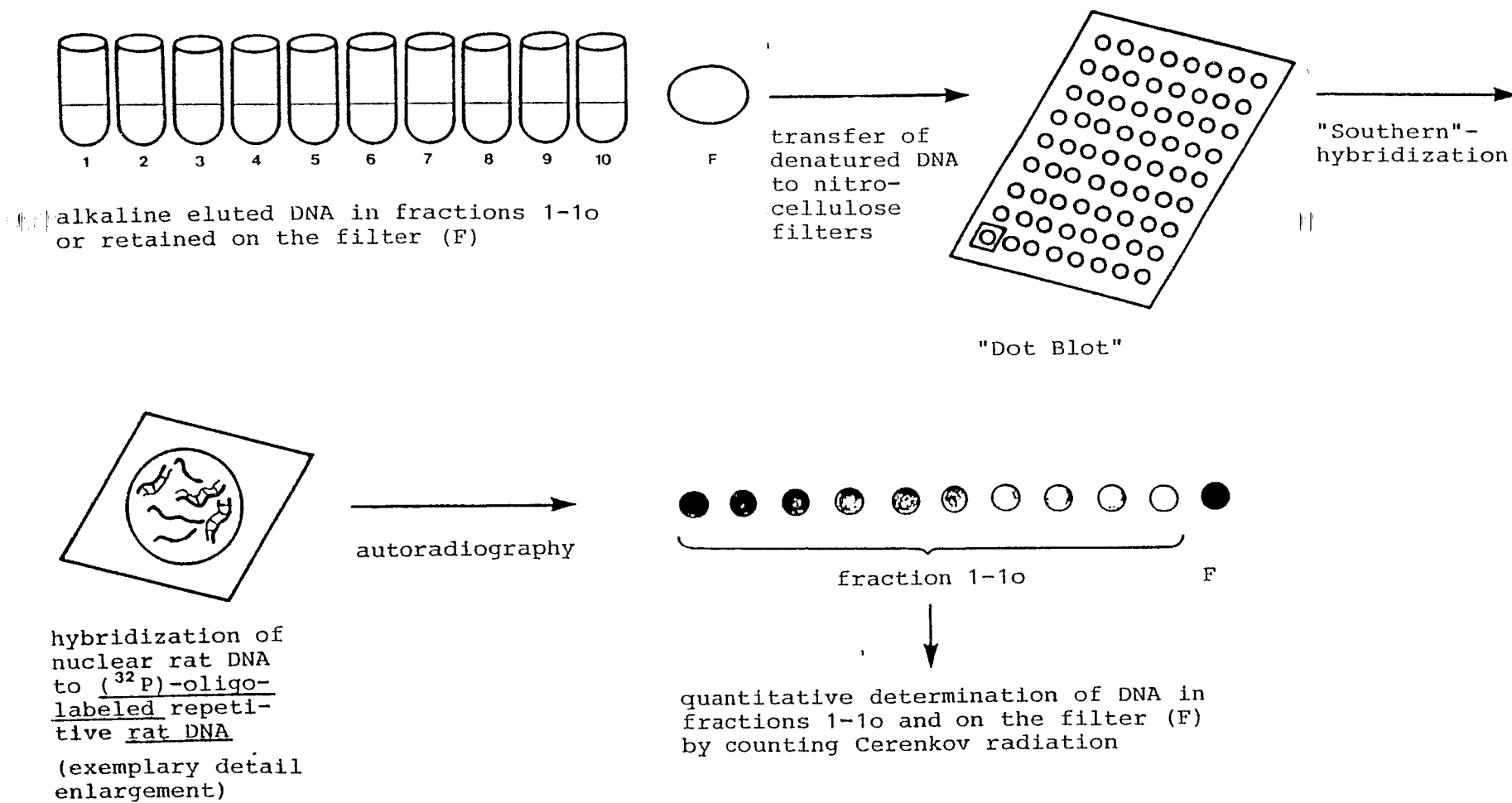


Collecting
10
fractions
within 10
hours

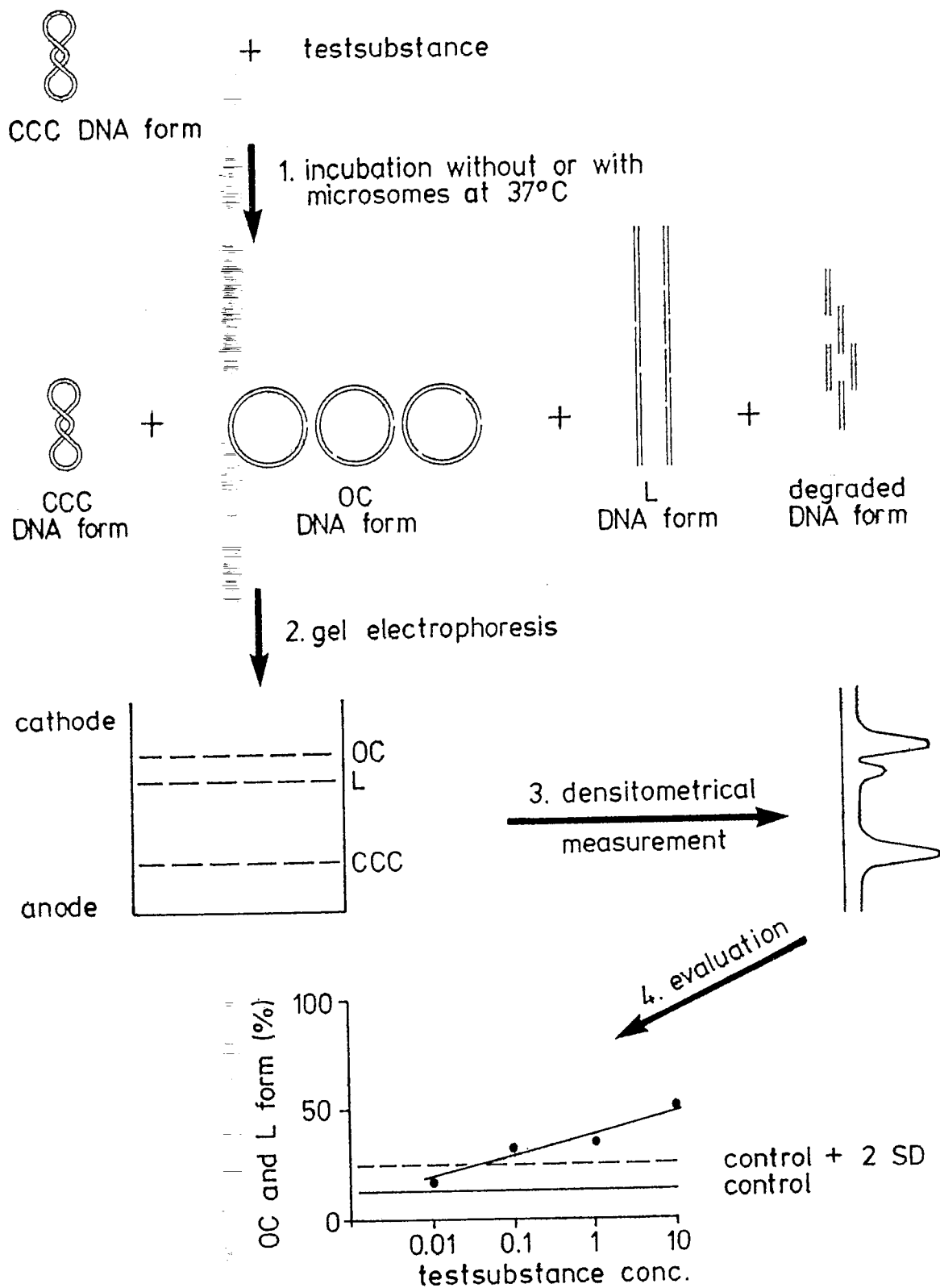
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Quantitative Determination of DNA by DNA-DNA Dot Hybridization

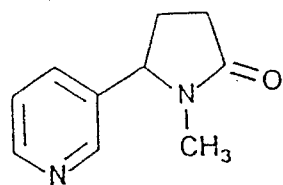
Following Alkaline Elution



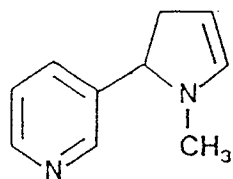
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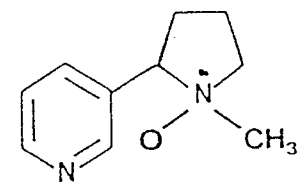
CO-Z317, 16.DEZ.88, IPO/IHO, KORRIG. 23.12.88, 6.APR.89



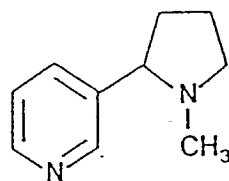
Cotinin



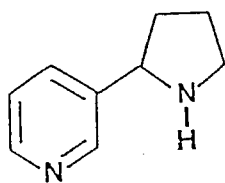
Nicotin-delta-4',5'-Enamin



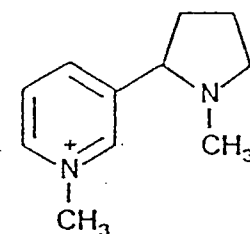
Nicotin-N'-Oxid



Nicotin



Nornicotin



N-Methylnicotinium-Ion

C-Oxidation
(mischfunktionelle
Monooxygenase)

Dehydrierung
(Prostaglandin-H-
Synthase)

N-Oxidation
(mischfunktionelle
Aminoxidase)

Demethylierung
(mischfunktionelle
Monooxygenase)

N-Methylierung
(Methyltransferase)

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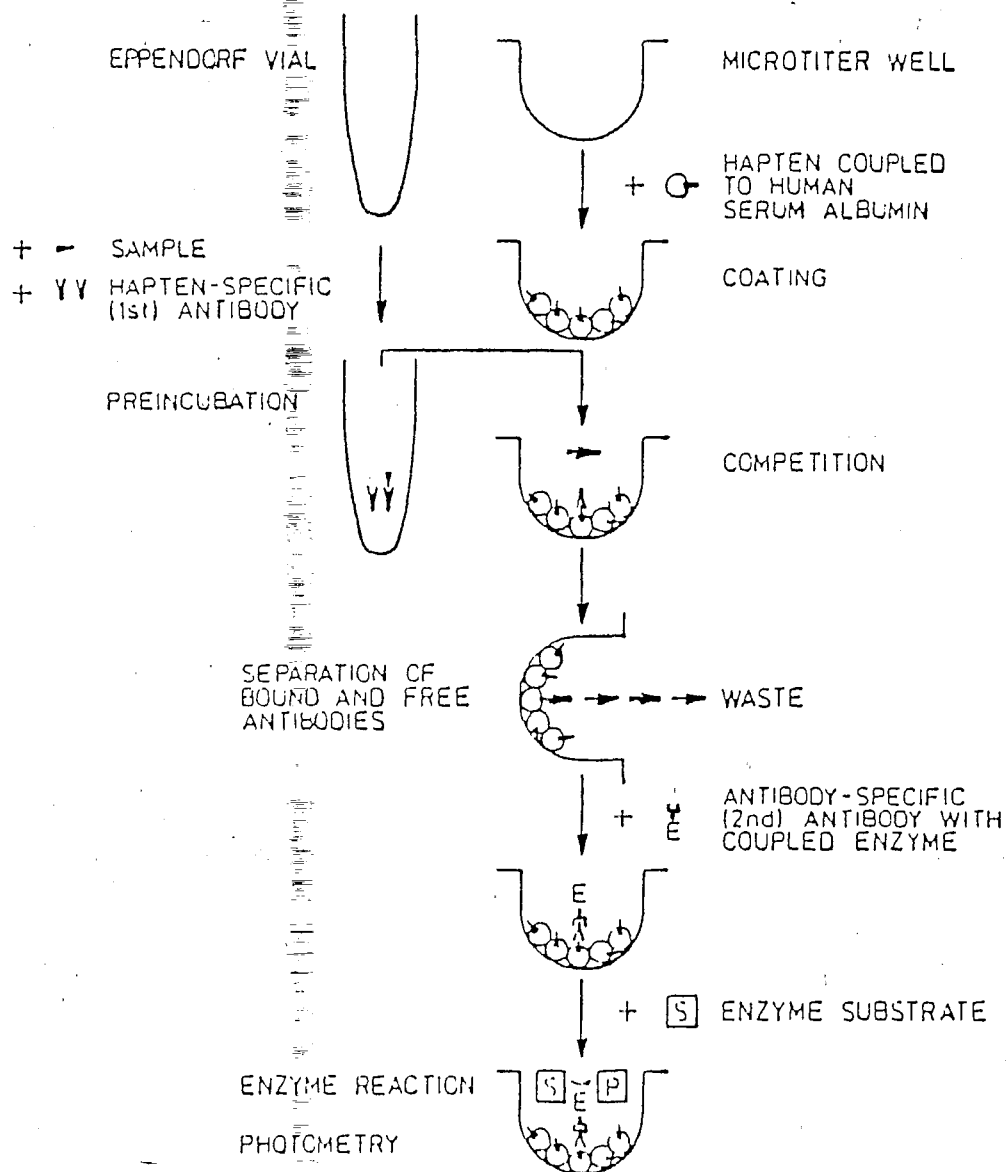


FIGURE E

SCHEMATIC REPRESENTATION OF HETEROGENEOUS ELISA WITH RABBIT ANTISERUM

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