

# INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MACROMOLECULAR DIVISION  
COMMISSION ON MACROMOLECULAR NOMENCLATURE\*

## USE OF ABBREVIATIONS FOR NAMES OF POLYMERIC SUBSTANCES

**(Recommendations 1986)**

(Supersedes version published 1974)

\*Membership of the Commission during the preparation of this report (1984–1985) was as follows:

*Titular Members:* G. Allegra (Italy), R. E. Bareiss (FRG), N. M. Bikales (USA, *Secretary*), A. D. Jenkins (UK, *Chairman*), P. Kratochvil (Czechoslovakia), I. Mita (Japan), I. M. Papisov (USSR), U. W. Suter (Switzerland).

*Associate Members:* D. Braun (FRG), J. M. G. Cowie (UK), L. G. Donaruma (USA), K. L. Loening (USA), R. H. Marchessault (Canada), R. P. Quirk (USA), M. Rinaudo (France), P. Sigwalt (France), W. J. Work (USA).

*National Representatives:* E. M. Macchi (Argentina), E. B. Mano (Brazil), L. Shi (Chinese Chemical Society), A. S. Tan (Malaysia), G. J. Leary (New Zealand), N. A. Platé (USSR).

# Use of abbreviations for names of polymeric substances (Recommendations 1986)

The IUPAC Commission on Macromolecular Nomenclature believes that the time is opportune for a new statement regarding the use of abbreviations for the names of polymers and polymeric materials. Previous recommendations by this Commission were published in 1974 (Ref. 1), and have been incorporated into an expanded draft international standard by the International Organization for Standardization (ISO) (Ref. 2).

The Commission wishes to state that it has no intention, at present, of devising a new system of abbreviations, owing to the inherent difficulty of assigning systematic and unique abbreviations to polymeric structures. The Commission reminds the reader of the IUPAC policy on the use of abbreviations in the chemical literature (Ref. 3), which declares, in part, that:

"There are great advantages in defining all abbreviations,...., in a single conspicuous place in each paper. This is preferably done near the beginning of the paper in a single list."

Indeed we urge that each abbreviation be fully defined the first time it appears in the text and that no abbreviation be used in titles of publications.

Those wishing to use abbreviations not contained in the 1974 document (Ref. 1) may refer to the current ISO list (Ref. 2). Both of these lists are reproduced in the appendices, for the convenience of the reader. It is to be noted that the ISO list in Appendix B uses nomenclature that is not necessarily in accord with IUPAC recommendations.

## REFERENCES

1. International Union of Pure and Applied Chemistry, "List of Standard Abbreviations (Symbols) for Synthetic Polymers and Polymer Materials 1974", Pure Appl. Chem. 40, 475 (1974).
2. International Organization for Standardization, International Standard ISO 1043-1986, "Plastics - Symbols and Codes - Part 1: Symbols for basic polymers and their modifications, and for plasticizers".
3. International Union of Pure and Applied Chemistry, "Use of Abbreviations in the Chemical Literature", Pure Appl. Chem. 52, 2229 (1980).

## APPENDIX A

### LIST OF ABBREVIATIONS FROM THE IUPAC RECOMMENDATIONS 1974

PAN	Polyacrylonitrile
PCTFE	Poly(chlorotrifluoroethylene)
PEO	Poly(ethylene oxide)
PETP	Poly(ethylene terephthalate)
PE	Polyethylene
PIB	Polyisobutylene
PMMA	Poly(methyl methacrylate)
POM	Poly(oxymethylene); polyformaldehyde
PP	Polypropylene
PS	Polystyrene
PTFE	Poly(tetrafluoroethylene)
PVAC	Poly(vinyl acetate)
PVAL	Poly(vinyl alcohol)
PVC	Poly(vinyl chloride)
PVDC	Poly(vinylidene dichloride)
PVDF	Poly(vinylidene difluoride)
PVF	Poly(vinyl fluoride)

**APPENDIX B****LIST OF ABBREVIATIONS FROM THE 1984 DRAFT  
INTERNATIONAL STANDARD ISO 1043-1986<sup>a</sup>****Homopolymers and natural polymers**

CA	Cellulose acetate
CAB	Cellulose acetate butyrate
CAP	Cellulose acetate propionate
CF	Cresol-formaldehyde
CMC	Carboxymethylcellulose
CN	Cellulose nitrate
CP	Cellulose propionate
EC	Ethylcellulose
EP	Epoxide; epoxy
MF	Melamine-formaldehyde
PA	Polyamide
PB	Polybutene-1
PBA	Poly(butyl acrylate)
PBT	Poly(butylene terephthalate)
PC	Polycarbonate
PDAP	Poly(diallyl phthalate)
PF	Phenol-formaldehyde
PUR	Polyurethane
PVB	Poly(vinyl butyral)
PVFM	Poly(vinyl formal)
PVK	Polyvinylcarbazole
PVP	Polyvinylpyrrolidinone
SI	Silicone
UF	Urea-formaldehyde
UP	Unsaturated polyester

**Copolymeric materials**

ABS	Acrylonitrile/butadiene/styrene
A/MMA	Acrylonitrile/methyl methacrylate
ASA	Acrylonitrile/styrene/acrylate
A/EPDM/S	Acrylonitrile/ethylene-propylene-diene/styrene
E/EA	Ethylene/ethyl acrylate
E/P	Ethylene/propylene
EPDM	Ethylene/propylene/diene
E/VAC	Ethylene/vinyl acetate
FEP	Perfluoro(ethylene/propylene); tetrafluoroethylene/hexafluoropropylene
MPF	Melamine/phenol-formaldehyde
S/B	Styrene/butadiene
S/MS	Styrene/ $\alpha$ -methylstyrene
VC/E	Vinyl chloride/ethylene
VC/E/MA	Vinyl chloride/ethylene/methyl acrylate
VC/E/VAC	Vinyl chloride/ethylene/vinyl acetate
VC/MA	Vinyl chloride/methyl acrylate
VC/MMA	Vinyl chloride/methyl methacrylate
VC/VAC	Vinyl chloride/vinyl acetate
VC/VDC	Vinyl chloride/vinylidene chloride

<sup>a</sup> Partial, edited list from Ref. 2.