

# SPECIFIC POLYMERS

*Your R&D partners in the field  
of polymers and materials*

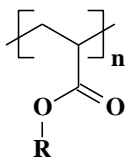


**Polymers  
Overview**

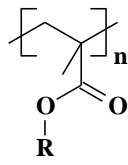


# POLYMERS BY MAIN POLYMERIZATION ROUTES

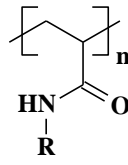
## RADICAL POLYMERIZATION



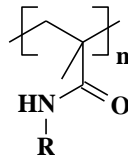
Polyacrylate



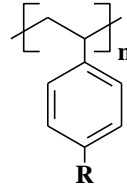
Polymethacrylate



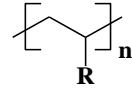
Polyacrylamide



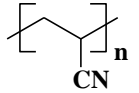
Polymethacrylamide



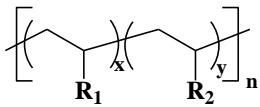
Polystyrene and derivatives



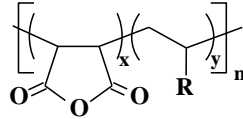
Polyvinyl



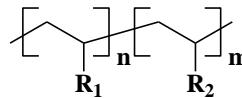
Polyacrylonitrile



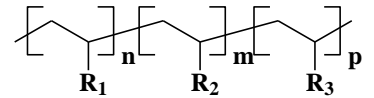
Statistical copolymers



AD copolymers  
(Maleic Anhydride - Vinyl ether/Allyl ether/Styrene)

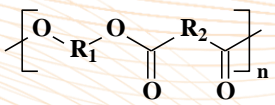


Diblock copolymer  
*Hydrophilic, Amphiphilic, etc.*

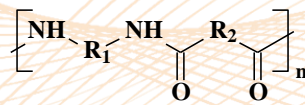


Triblock copolymer

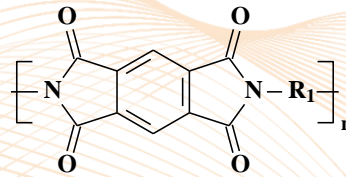
## CLASSICAL STEP-GROWTH POLYMERIZATION



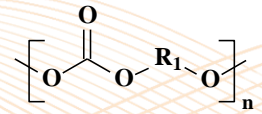
Polyester



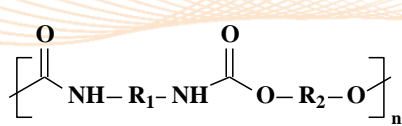
Polyamide



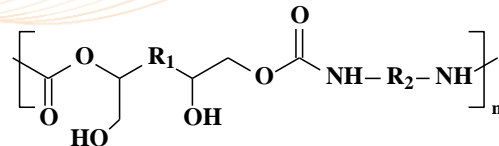
Polyimide



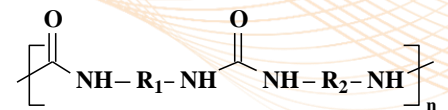
Polycarbonate



Polyurethane - PU

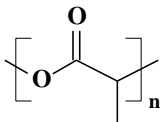


Polyhydroxyurethane - NiPU

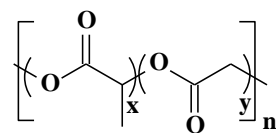


Polyurea

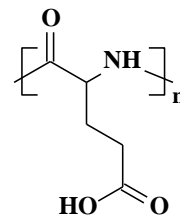
## BIODEGRADABLE POLYMERS - RING OPENING POLYMERIZATION



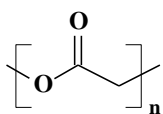
PLA (Polylactic acid)



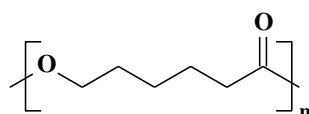
PLGA (Polylactide-co-glycolide)



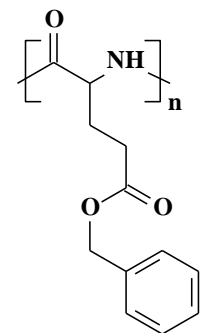
Poly(glutamic acid)



PGA (Polyglycolide)



Polycaprolactone



Poly(benzyl glutamate)

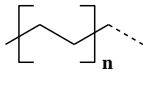
## SPECIFIC POLYMERS



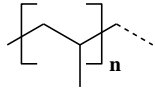


# OUR SPECIALTY POLYMERS

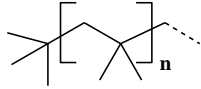
## 1. FUNCTIONAL POLYOLEFINS



Poly(ethylene)  
PE

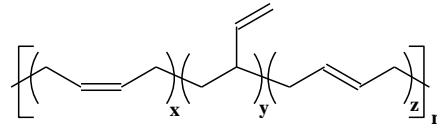


Poly(propylene)  
PP

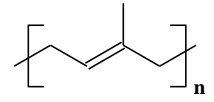


Poly(isobutylene)  
PIB

## 2. FUNCTIONAL RUBBERS

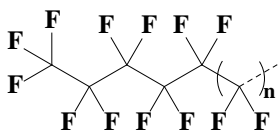


Polybutadiene

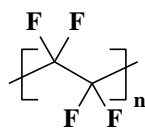


Polyisoprene

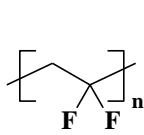
## 3. FLUOROPOLYMERS



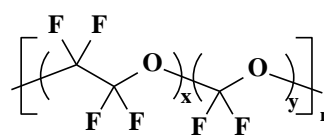
Functional  
perfluoroalkyl



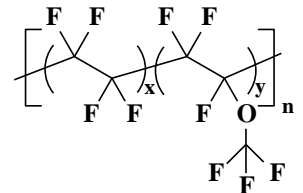
PTFE -  
PolyTetraFluoro-  
Ethylene



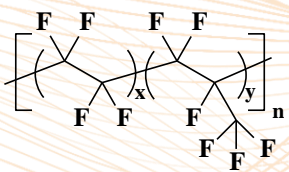
PVDF -  
PolyVinylidene  
Fluoride



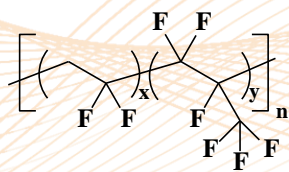
PFPE -  
PerFluoroPolyEther



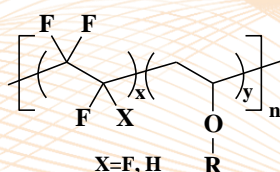
PFA -  
PerFluoroAlkoxy



FEP - Fluorinated  
Ethylene Propylene

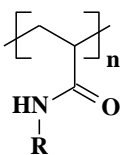


P(VDF-HFP)

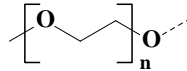


FEVE - AD poly(Fluoro  
Ethylene-co-Vinyl Ether)

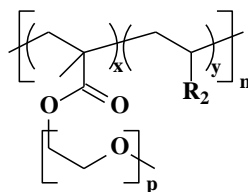
## 4. STIMULI RESPONSIVE POLYMERS



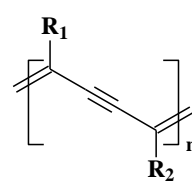
Thermosensitive  
Polyacrylamide



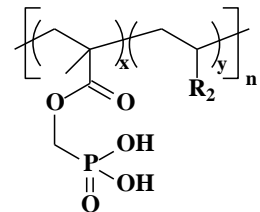
Thermoresponsive  
PEO and derivatives



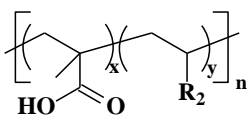
Thermoresponsive  
grafted PEO copolymers



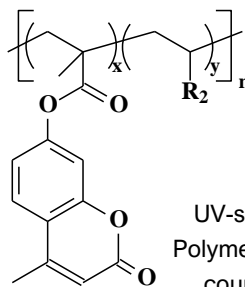
Thermochromic  
Polydiacetylenes (PDAs)



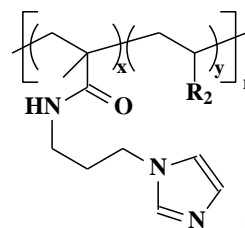
pH-sensitive Polymer  
bearing phosphonic acids



pH-sensitive  
Polymer bearing  
carboxylic acids



UV-sensitive  
Polymer bearing  
coumarin



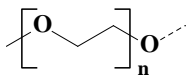
pH-sensitive  
Polymer bearing  
imidazole groups

## SPECIFIC POLYMERS

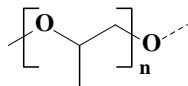




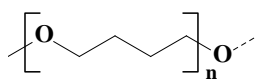
## 5. FUNCTIONAL POLYETHERS



Poly(ethylene oxide) PEO

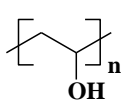


Poly(propylene oxide) PPO

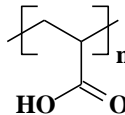


PolyTHF

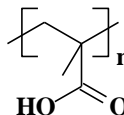
## 6. WATER SOLUBLE POLYMERS



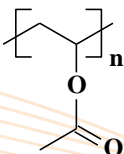
Poly(vinyl alcohol) - PVOH



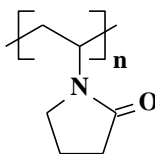
Poly(acrylic acid)



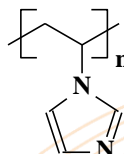
Poly(methacrylic acid)



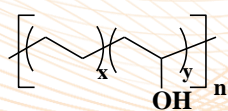
Poly(vinyl acetate) - PVAC



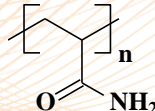
Poly(N-vinyl pyrrolidone) - PVP



Poly(vinyl imidazole) PVI

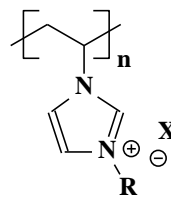


Poly(ethylene-co-vinylalcohol) - EVOH

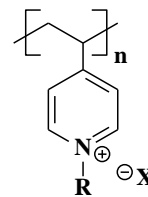


Poly(acrylamide)

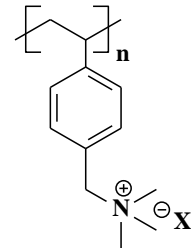
## 7. POLYMERIC SALTS (CATIONIC)



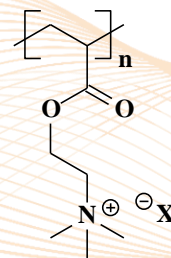
Poly(vinyl imidazolium)



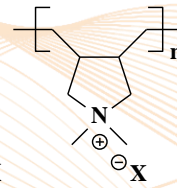
Poly(4-vinyl pyridinium)



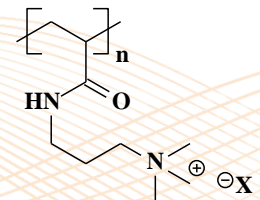
poly(vinylbenzyl trimethylammonium)



Poly((2-dimethyl ammonium) ethyl acrylate)

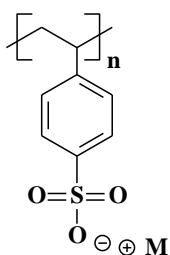


Poly(diallyl dimethyl ammonium)

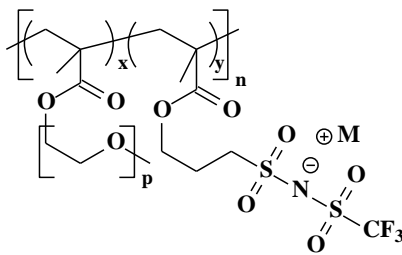


Poly(3-Acrylamidopropyltrimethyl ammonium)

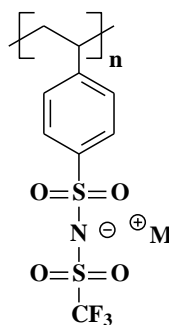
## 8. POLYMERIC SALTS (ANIONIC)



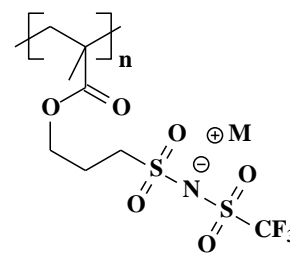
Poly(Styrene sulfonate)



Poly(STFSI-M-stat-PEGMA)



Poly(STFSI-M)

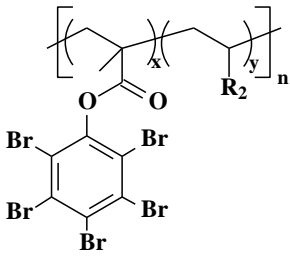


Poly(MTFSI-M)

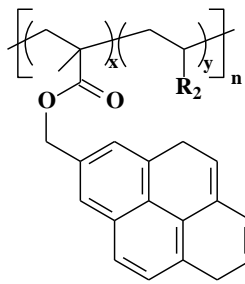
## SPECIFIC POLYMERS



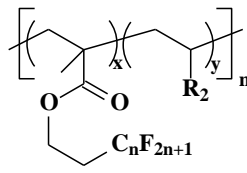
## 9. OPTICAL POLYMERS



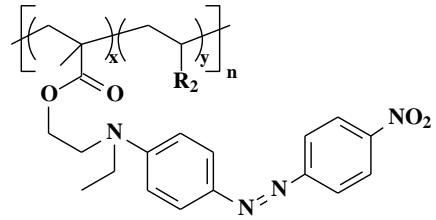
HRI  
Pentabromophenyl  
(co)polymers



Fluorescent  
(co)polymers

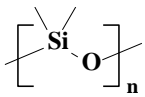


LRI fluorinated  
(co)polymers

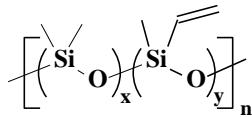


NLO  
(co)polymers

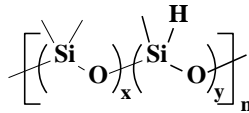
## 10. POLYSILOXANES - POLYSILAZANES



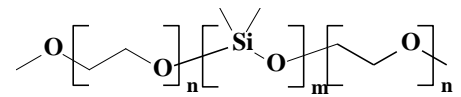
PDMS –  
PolyDiMethylSiloxane



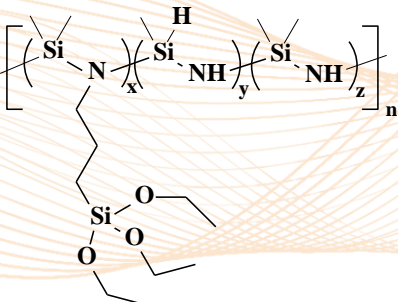
Poly(DMS-co-VMS)  
*Poly(DiMethylSiloxane-co-VinylMethylSiloxane)*



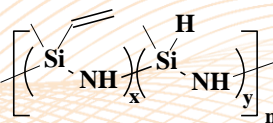
Poly(DMS-co-MHS)  
*Poly(DiMethylSiloxane-co-MethylHydroSiloxane)*



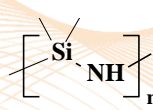
PEO-block-PDMS-block-PEO



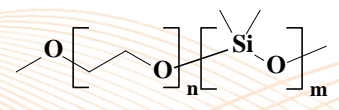
Organic PolySilaZane (OPSZ)  
*Propyltriethoxysilyl-co-Methylhydrosilazane*



Organic PolySilaZane (OPSZ)  
*Vinylmethylsilazane-co-Methylhydrosilazane*



Perhydropolysilazane (PHPS)

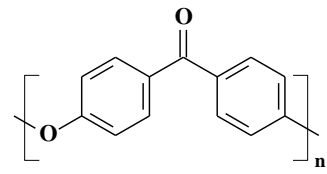


PEO-block-PDMS

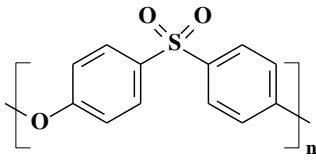
## SPECIFIC POLYMERS



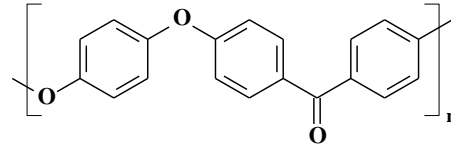
## 11. THERMOSTABLE POLYMERS



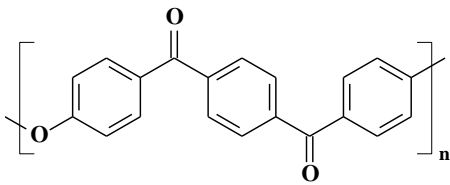
PolyEtherKetone -  
PEK



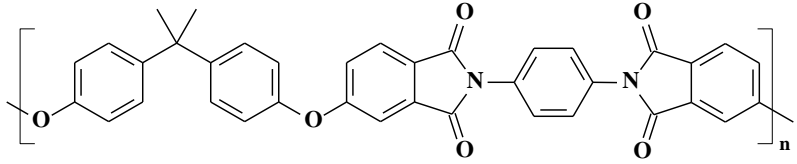
PolyEtherSulfone -  
PES



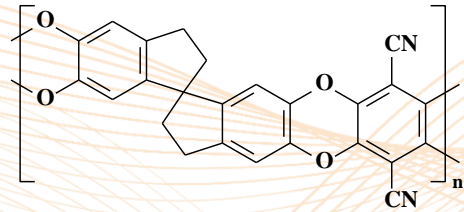
PolyEtherEtherKetone -  
PEEK



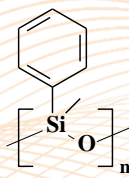
PolyEtherKetoneKetone -  
PEKK



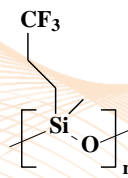
PolyEtherImide -  
PEI



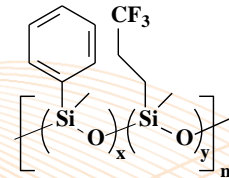
Polymer of Intrinsic  
Microporosity - PIM



Phenylmethyl  
silicone



Fluorosilicone



Phenyl/Fluorosilicone  
copolymers