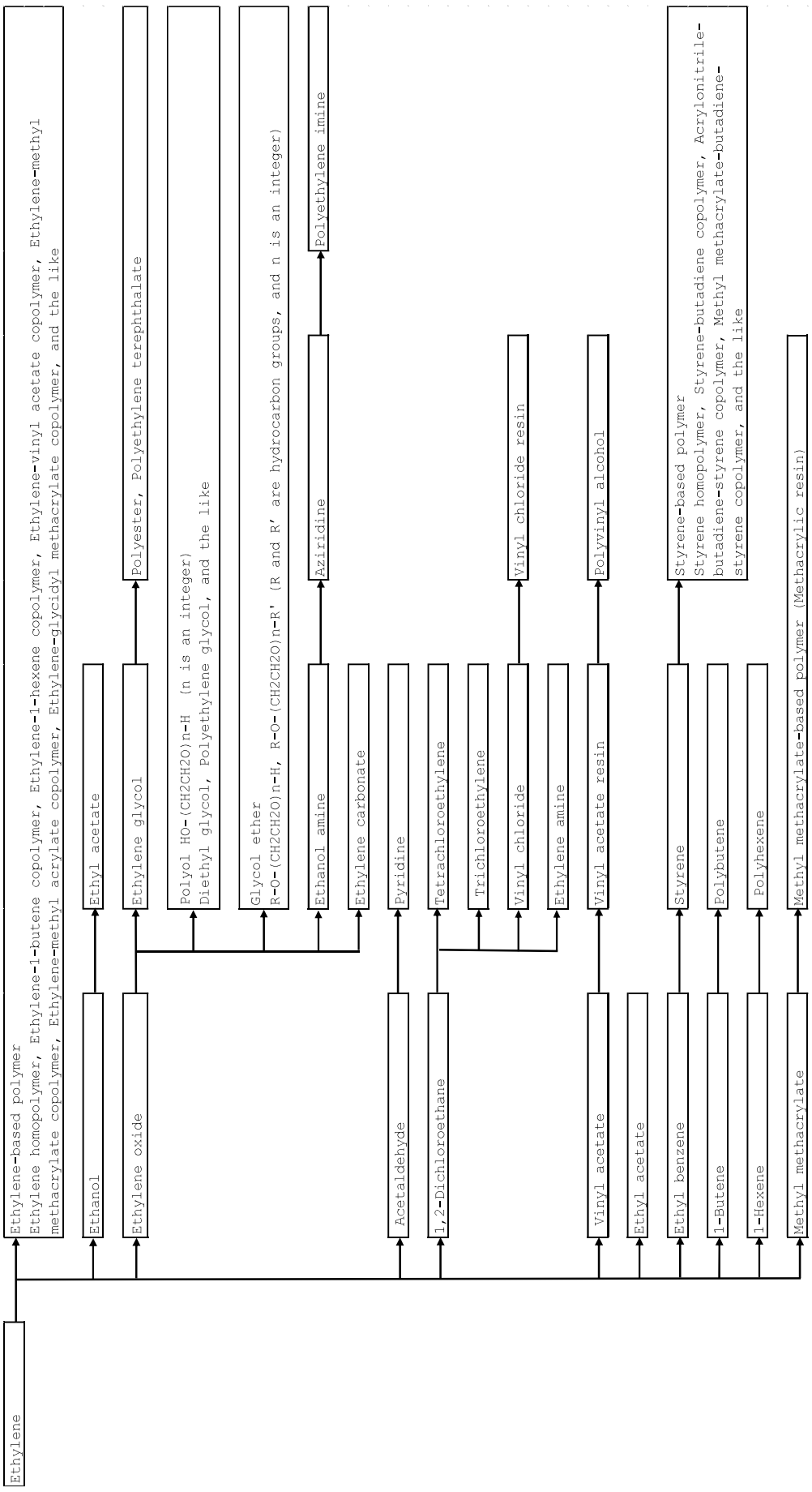
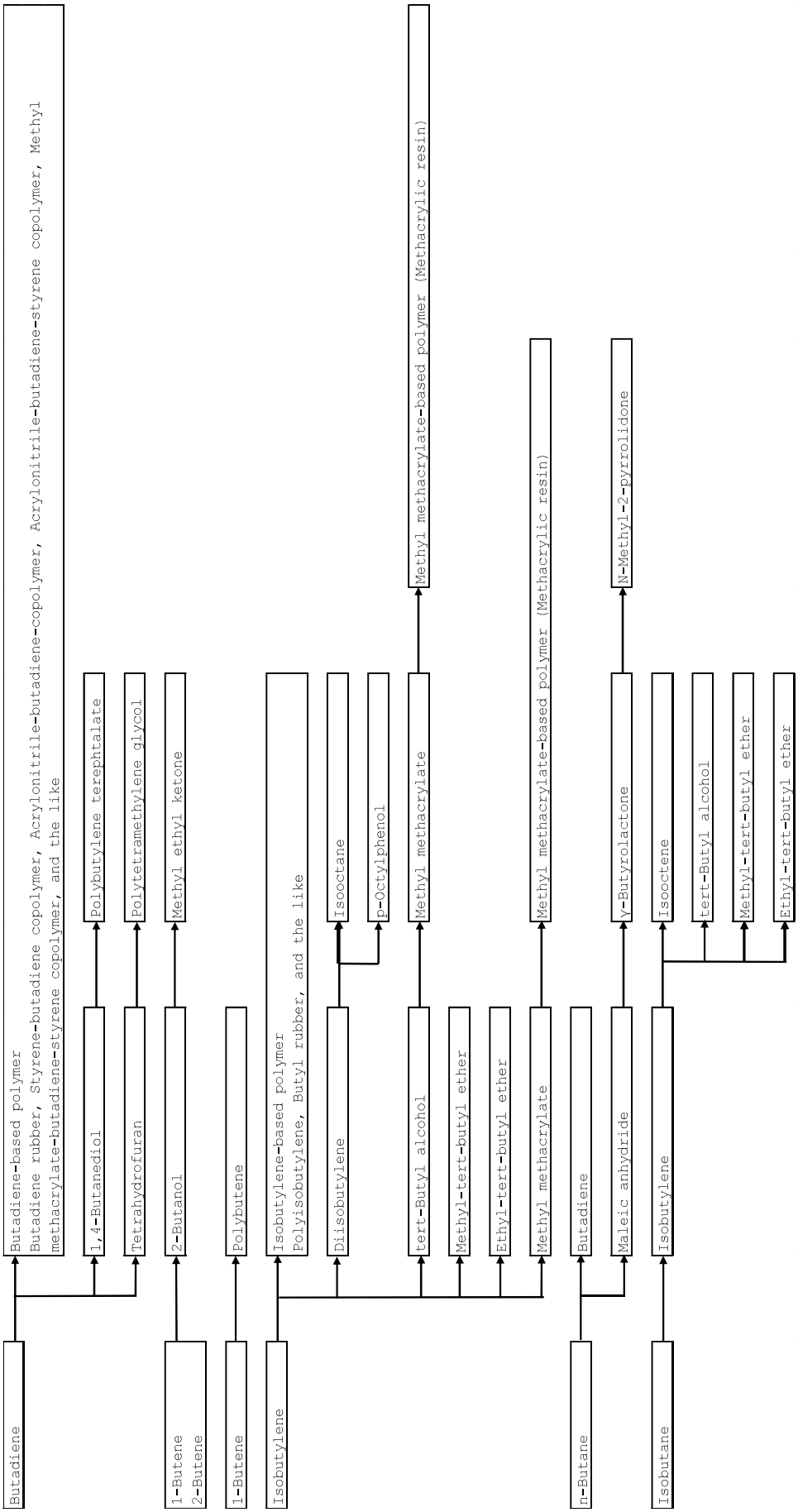
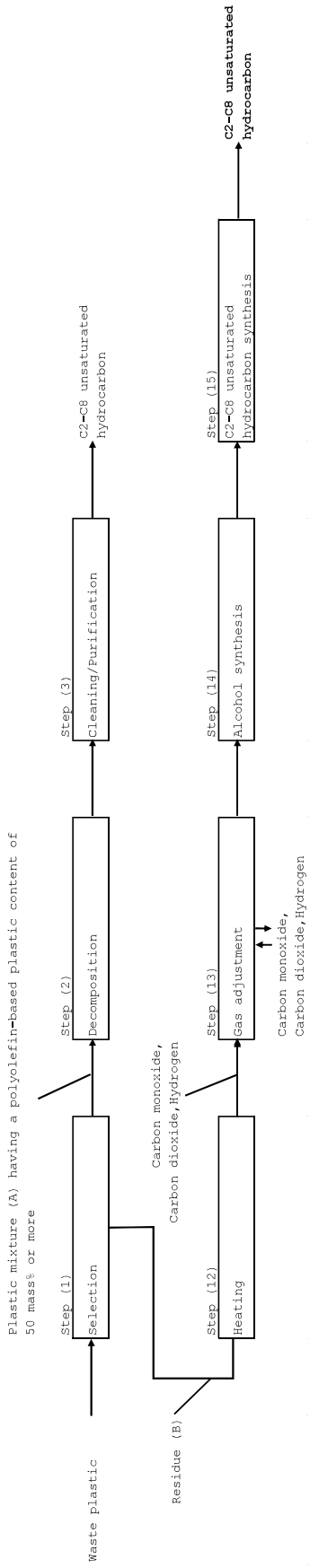
【Fig. 1】


Ethylene
Ethylene-based polymer
Ethylene homopolymer, Ethylene-1-butene copolymer, Ethylene-1-hexene copolymer, Ethylene-vinyl acetate copolymer, Ethylene-methyl methacrylate copolymer, Ethylene-methyl acrylate copolymer, Ethylene-glycidyl methacrylate copolymer, and the like
Ethanol
Ethyl acetate
Ethylene oxide
Ethylene glycol
Polyester, Polyethylene terephthalate
Polyol HO-(CH2CH2O)n-H (n is an integer)
Diethyl glycol, Polyethylene glycol, and the like
Glycol ether
R-O-(CH2CH2O)n-H, R-O-(CH2CH2O)n-R' (R and R' are hydrocarbon groups, and n is an integer)
Ethanol amine
Aziridine
Polyethylene imine
Ethylene carbonate
Pyridine
Acetaldehyde
Tetrachloroethylene
1,2-Dichloroethane
Trichloroethylene
Vinyl chloride resin
Vinyl chloride
Ethylene amine
Polyvinyl alcohol
Vinyl acetate resin
Vinyl acetate
Ethyl acetate
Styrene-based polymer
Styrene homopolymer, Styrene-butadiene copolymer, Acrylonitrile-butadiene-styrene copolymer, Methyl methacrylate-butadiene-styrene copolymer, and the like
Styrene
Ethyl benzene
Polybutene
1-Butene
Polyhexene
1-Hexene
Methyl methacrylate-based polymer (Methacrylic resin)
Methyl methacrylate

【Fig. 3】


Butadiene
1-Butene
2-Butene
1-Butene
Isobutylene
n-Butane
Isobutane
Butadiene-based polymer
Butadiene rubber, Styrene-butadiene copolymer, Acrylonitrile-butadiene-copolymer, Acrylonitrile-butadiene-styrene copolymer, Methyl methacrylate-butadiene-styrene copolymer, and the like
1,4-Butanediol
Tetrahydrofuran
2-Butanol
Polybutene
Isobutylene-based polymer
Polyisobutylene, Butyl rubber, and the like
Diisobutylene
tert-Butyl alcohol
Methyl-tert-butyl ether
Ethyl-tert-butyl ether
Methyl methacrylate
Butadiene
Maleic anhydride
Isobutylene
Polybutylene terephtalate
Polytetramethylene glycol
Methyl ethyl ketone
Isooctane
p-Octylphenol
Methyl methacrylate
Methyl methacrylate-based polymer (Methacrylic resin)
Methyl methacrylate-based polymer (Methacrylic resin)
γ-Butyrolactone
N-Methyl-2-pyrrolidone
Isooctene
tert-Butyl alcohol
Methyl-tert-butyl ether
Ethyl-tert-butyl ether

【Fig. 8】


Plastic mixture (A) having a polyolefin-based plastic content of 50 mass% or more
Waste plastic
Residue (B)
Step (1)
Selection
Step (2)
Decomposition
Step (3)
Cleaning/Purification
C2-C8 unsaturated hydrocarbon
Step (12)
Heating
Carbon monoxide, Carbon dioxide, Hydrogen
Step (13)
Gas adjustment
Carbon monoxide, Carbon dioxide, Hydrogen
Step (14)
Alcohol synthesis
Step (15)
C2-C8 unsaturated hydrocarbon synthesis
C2-C8 unsaturated hydrocarbon