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Graft Copolymerization of Acrylonitrile onto Cassava Starch via Gamma Radiation

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พิมพ์ต้นฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสีเขียวนี้เพียงแผ่นเดียว

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LIST OF ABBREVIATIONS

°ซ.	องศาเซลเซียส
°C	degrees Celsius
Ce(IV)	cerium ion
CAN	ceric ammonium nitrate
AN	acrylonitrile
S-PAN	starch-polyacrylonitrile
HSPAN	hydrolyzed soponified polyacrylonitrile
HWAP	high water absorbing polymer
DMF	N,N - dimethylformamide
PAN	polyacrylonitrile
WRV	water retention value
M.W.	molecular weight
$\bar{M}_v$	viscosity average molecular weight
G value	the number of free radicals formed per 100 e.v. absorbed, is a measure of radiation sensitivity
kgy	kilogray
%	per cent
Mn^{3+}	manganese (III)
AGU	anhydroglucose unit
α	alpha
γ	gamma
D.P.	degree of polymerization
BU	bushel unit

g	gram
ml	milliliter
M	molarity
cm^{-1}	unit of wavenumber
microns	micrometers
C≡N	nitrile group
w/v	weight by volume
w/w	weight by weight
Co^{60}	cobalt-60
I	intensity of radiation
P	backbone polymer
P·	polymer radical
M	grafting monomer
PM_m	graft copolymer
PM_n	graft copolymer
PM_{m+n}	graft copolymer
r	rate of initiation of polymer radical
r_i	rate of initiation of graft reaction
r_p	rate of propagation
r_t	rate of termination
k	rate constant for initiation of polymer radicals
k_i	rate constant for initiation of graft reaction

k_p	propagation rate constant
k_t	termination rate constant
Eur. Polym. J	European Polymers Journal
Makromol. Chem.	Makromolekulare Chemie
J. Polym. Sci. A	Jounal of Polymer Science, part A
J. Polym. Sci. C	Jounal of Polymer Science, Part C
J. Appl. Polym. Sci.	Jounal Applied Polymer Science
J. Macromol. Sci. Chem.	Jounal of Macromolecular Science and Chemistry
Polym. lett.	Polymer letter
Chem. Tech.	Chemical Technology
Radiat. Phys. Chem.	Radiation Physics and Chemistry