## Contents

List of Attendees	5
Conference photo	6
Acknowledgements	8
Foreword Richard Wagner	9
Welcome of the Prorector of the Jagellonian University Karol Musioł	11
Welcome of the Consul General of the German Consulate in Cracow Maren Klingler	12

## - PAPERS -

Dynamics of strangeness production in the near threshold nucleon-nucleon collisions Radhey Shyam	15
Study of the ground and excited states of $\Lambda$ and $\Sigma$ hyperon production at COSY Dieter Grzonka	30
Towards the excitation function of the $pp \rightarrow ppK^+K^-$ reaction at COSY-11 Peter Winter	45
Drift chamber with a U-shaped frame Jerzy Smyrski	52
Production of $\Sigma^+$ at COSY-11 Tomasz Rożek, Dieter Grzonka	63

Molecule formation in the $K\bar{K}$ - and $DK$ -channels Felix P. Sassen	75
The $\Theta^+(1540)$ resonance and its influence on the reactions $K^+N$ and $K^+d$ Johann Haidenbauer	81
On the possibility of studying properties of the exotic $\Theta^+$ baryon using WASA at COSY Józef Złomańczuk	94
The puzzle of apparent narrowing of widths of meson reso- nances produced at or near maximum momentum transfer Bogdan C. Maglić	102
Polarized proton and deuteron beams at COSY Hans Stockhorst	106
COSY-11 as a polarimeter Rafał Czyżykiewicz	122
Spin-observables in meson production in nucleon-nucleon col- lisions Pachattu Deepak, Gowravaram Ramachandran, Christoph Hanhart	138
$\eta'$ meson production in gamma-nucleon and nucleon-nucleon collisions Kanzo Nakayama	150
Recent results on $\eta$ and $\eta'$ photoproduction on the proton Barry G. Ritchie	177
Total and differential cross sections for the $pp \rightarrow pp\eta'$ reaction near threshold Alfons Khoukaz	1 <b>93</b>
<b>Production of</b> $\eta$ meson in NN collisions Vadim Baru et al.	199
Three-pair final-state interaction in the $pp \rightarrow pp\eta$ reaction close to threshold Andrzej Deloff	206

2
---

Quasi-free production of the $\eta$ and $\eta'$ mesons in nucleon nucleon collisions Joanna Stepaniak, Hans Calén	1- 224
Bremsstrahlung radiation in the deuteron – proton collision Joanna Przerwa	231
Measurement of the $\eta$ meson production via the quasi-free $pn \rightarrow pn\eta$ reaction Michał Janusz, Paweł Moskal	e 238
How to disentangle contributions from a single meson and multi-pion production in the missing mass spectra of the quasi- free $pn \rightarrow pnX$ reactions Pawel Moskal	
Precise scan of the $dp \rightarrow {}^{3}\mathbf{H}\pi^{+}/{}^{3}\mathbf{He}\pi^{0}$ cross section ratio at the $\eta$ production threshold Jerzy Smyrski	260
New results on the $pd \rightarrow {}^{3}He \eta$ production near threshold Heinz-Hermann Adam et al.	266
Study of the $d - \eta$ interaction in the $dp \rightarrow dp\eta$ reaction Cezary Piskor-Ignatowicz, Paweł Moskal, Jerzy Smyrski	272
The gluon content of $\eta$ and $\eta'$ mesons Nicos Stefanis, Shahin S. Agaev	280
Tests of Chiral Perturbation Theory in $\eta$ decays Andrzej Kupść	298
Hadronic decays of $\eta$ and $\eta'$ Niklas Beisert, Bugra Borasoy	307
Measurements of $\eta'$ decays using WASA@COSY Magnus Wolke	314